

Brown Is New Boston University President

By Beckett W. Sterner
NEWS EDITOR

Boston University's Board of Trustees announced on June 4 that MIT Provost Robert A. Brown would be the university's next president.

Brown, who has won praise as a good listener and decisive leader from MIT administrators and faculty, will take office as president on Aug. 1.

Brown was "unflappable" when facing a challenge, said Richard Schmalensee, dean of the Sloan School. He said Brown is "a man of deep integrity," and also, "really, really smart."

Brown's "vision, insight and judgment on an astounding range of issues are unparalleled," wrote President Susan Hockfield in a statement to the community, "and I have benefited enormously from his wisdom and experience as I embarked on the presidency of the Institute."

Brown has been provost during a time of great expansion for the Institute, both in terms of the campus and research volume.

"His fingerprint is everywhere," said Dean of Engineering Thomas L. Magnanti, citing Brown's influence in bringing the new Stata Center and Brain and Cognitive Science



BOSTON UNIVERSITY

Provost Robert A. Brown will be the next president of Boston University, taking office Aug. 1.

Project to fruition, as well as successfully negotiating the Broad Institute, a biomedical research collaboration between MIT, Harvard

and the Whitehead Institute.

The newly created bioengineering undergraduate major is also in "large part to his credit," said Pro-

fessor Rohan Abeyaratne, head of the department of mechanical engi-

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Efforts to Change ROTC Policies on Gays Stalled National Climate Precludes New Action

By Kathy Lin
CONTRIBUTING EDITOR

MIT's efforts to encourage acceptance of homosexual students in the Reserve Officer Training Corps have stalled amidst the Bush administration's anti-homosexual political atmosphere, with little prospect for advancement.

Although President Emeritus

Charles M. Vest was able to make some progress fighting against the "don't ask, don't tell" policy — which allows homosexual students to participate in ROTC as long as they are not openly gay — during the Clinton administration in the 1990s, the "Bush administration is

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Federal Law Requires MIT Teach Constitution in Sept.

By Ray C. He
STAFF REPORTER

MIT students will learn a little more about the United States Constitution next September, thanks to a federal law passed last year. The law, tied to a spending bill, requires educational institutions receiving federal funding to educate their students about the historic document.

MIT will hold an event teaching the Constitution within a week of Constitution Day, September 17,

said Dean for Undergraduate Education Robert P. Redwine.

The nature of the MIT event has yet to be determined, but "we will do something serious," Redwine said. "I would assume we'll do something general, maybe [invite] a distinguished speaker."

Redwine said that based on his discussions with people from other universities, the attitude toward teaching the Constitution has generally been positive, but the law's "prescriptive nature seems unfortunate."

"It sets a bad precedent. It could

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Dean for Undergrad Education Robert Redwine to Step Down

By Kathy Lin
CONTRIBUTING EDITOR

Dean for Undergraduate Education Robert P. Redwine plans to step down from his position at the end of the calendar year and return to teaching and research in the physics department.

"This was always expected," Redwine said, as the term is intended to last five years. Because President Susan Hockfield asked upper-level administrators to stay in their positions for at least one year after her arrival last December, Redwine will have served for five-and-a-half years by the time he steps down.

The timing also makes sense as the Task Force on the Undergraduate Educational Commons is expected to give its final report in the fall,

Energy Council To Lead Institute Initiative

By Beckett W. Sterner
NEWS EDITOR

As her first major initiative, MIT President Susan Hockfield announced a new Energy Research Council this week that will study how MIT can help solve the world's growing energy crisis.

Hockfield had first announced the general project in her inaugural address this May. "This initiative will foster new research in science and technology aimed at increasing the energy supply and bringing scientists, engineers, and social scientists together to envision the best energy policies for the future," she said in her speech.

Council co-chair Ernest J. Moniz said recruiting new faculty is "arguably the key element of the Council's charge." He said the Council would seek researchers who "have work that spans boundaries internally."

A search for approximately six new faculty positions to fill gaps in MIT's current research program will be conducted by the Council, said Provost Robert A. Brown.

The three major elements of the Council's charge are: "To get a clearer picture of what is happening now" in energy research across campus, to "identify those areas that we think provide the best match of [global] needs" and MIT's skills, and to write a report for Feb. 1, 2006, with recommendations on how to facilitate interdisciplinary research, Moniz said.

The committee will go to work immediately, and will have its first

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RAY C. HE—THE TECH

Concrete barrels divide Massachusetts Avenue into a path for construction vehicles and a significantly reduced roadway for traffic.

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GSC Advocacy Leads to Changes
in Mass. Ave. Construction Plans

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Professors Awarded Tenure

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Japanese Universities Create
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MIT Budget Returns to Normal
Following Tough Years

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Changes to SafeRide Routes
Approved for Fall

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MIT Corporation Elects New
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WORLD & NATION

Bolivia Leaderless As Vote Is Delayed

THE NEW YORK TIMES LA PAZ, BOLIVIA

Bolivian lawmakers suspended a special session of Congress on Thursday that was to have been the stage for accepting President Carlos Mesa’s resignation and naming a new leader.

The session was scheduled in Sucre because La Paz, the commercial capital, has been choked by protests, but demonstrators quickly descended on Sucre. The situation deteriorated after troops shot dead a 52-year-old miner just outside Sucre.

The delay by Congress raised tensions, with Mesa’s government imploring lawmakers to act fast and call for early elections to defuse demonstrations. “In these dramatic hours, the country is waiting for a solution,” said the interior minister, Saul Lara.

The armed forces announced that troops might intervene to ensure that the constitutional process of choosing a new president was respected. “We will defend the democratic succession,” said Adm. Luis Aranda Granados, head of the armed forces.

His comments suggested that troops would defend the Senate president, Hormando Vaca Diez, the next in line for president, who is seen as representative of a corrupt elite.

A Contrarian Bond Market Thwarts Fed’s Brakes

By David Leonhardt
THE NEW YORK TIMES

For the past year, the Federal Reserve has been conducting a relentless campaign to raise interest rates. And over that same year, the rates that matter the most to many people — mortgage rates — have fallen to near 30-year lows.

Low mortgage rates have lifted the nation’s long housing boom to a new level, creating jobs and wealth but also worries that some local markets have turned into bubbles. Mortgage refinancing has also taken off again, injecting cash into households at a time when incomes are growing little faster than inflation for most workers.

“It’s been fantastic,” said Ed Schreyer, a 38-year-old executive in Cincinnati who has refinanced his mortgage seven times since buying his home in 2001 and refinanced the mortgage on a Colorado vacation home twice since buying it in 2003. “It’s more cash in my pocket and less money going out the door.”

Calvin S. Jackson, a 53-year-old college math teacher in Atlanta, decided he would start looking to buy his first house even though home prices have been rising. “The current market makes it very, very encouraging to borrow money, to take a chance and buy a home,” Jackson said. “This is the time to move.”

Three Senators Plan to Bar Vote on FDA Head

By Gardiner Harris
THE NEW YORK TIMES

Although an inspector-general’s report failed to find evidence that Dr. Lester M. Crawford was having an affair with a subordinate, three senators say they plan to block a vote by the full Senate on his nomination to head the Food and Drug Administration.

The Senate Health, Education, Labor and Pensions Committee is scheduled to vote on the nomination next Thursday.

But Sens. Hillary Rodham Clinton of New York and Patty Murray of Washington, both Democrats, say they will put a “hold” on the nomination, a move that will bar a vote by the full Senate, until the FDA issues a long-delayed decision on over-the-counter sales of the morning-after birth control pill. Such holds cannot be placed until the committee votes.

A spokesman for Sen. Tom Coburn, R-Okla., said Coburn would place a hold because the food and drug agency had failed to require new labels for condoms warning that they do not fully protect against sexually transmitted diseases.

U.S., Britain Agree on Plan For Aid to Poorest Nations

By Elizabeth Becker
and Richard W. Stevenson
THE NEW YORK TIMES

WASHINGTON

The United States and Britain have reached an agreement on how the billions of dollars the world’s poorest nations owe to international lenders can be erased, removing the last impediment to an accord long-sought by the richest nations, a senior official involved in the negotiations said Thursday.

Treasury Secretary John W. Snow and his British counterpart, Gordon Brown, the chancellor of the exchequer, will present their proposal to a meeting of the finance ministers of seven of the Group of 8 industrial nations on Friday in London, the official said.

The plan would free 18 countries, most of which are in Africa, from any obligation to repay the \$16.7 billion they owe the international lenders, said the official, who requested anonymity because the formal announcement had not been made.

The debts will be written off by the lenders in an effort to allow the debtor countries to start fresh, get their books in order and eventually to be able to borrow again for economic development, health, education and social programs, rather than simply to repay existing loans.

The White House has also rebuffed Blair’s efforts to persuade the United States to move closer to the position of the other industrial nations on how to fight global warming.

Bush also has resisted calls by Blair for a doubling of direct governmental aid to Africa, saying the United States has already tripled aid to African countries in recent years and will provide more as those nations show they can use it effectively. And the administration has rejected the British proposal for creation of a new international body that would raise money for Africa by borrowing against pledges of future aid.

The debt relief negotiations had been bogged down for months over two issues. One was whether the rich nations should take over responsibility for repaying the debts, as Britain had proposed, or whether the loans should be written off entirely by the lenders, the approach favored by the United States.

In the end, Britain agreed to the American approach with a promise from the United States to provide additional money to the lenders to make up for the assets they were writing off.

Report Reveals FBI Mistakes In Months Preceding Sept. 11

By Eric Lichtblau
THE NEW YORK TIMES

WASHINGTON

The FBI missed at least five chances in the months before Sept. 11, 2001, to find two hijackers as they prepared for the attacks and settled in San Diego, the Justice Department inspector general said in a report made public Thursday after being kept secret for a year. Investigators were stymied by bureaucratic obstacles, communication breakdowns and a lack of urgency, the report said.

The blistering findings mirror those of the Sept. 11 commission last summer and a joint congressional inquiry in 2002, but they also provide significant new details about the many bureaucratic breakdowns that plagued the FBI before the Sept. 11 attacks and are likely to fuel questions about the agency’s efforts to remake itself.

The Sept. 11 commission had access to an earlier version of the inspector general’s study and incorporated parts of those findings in its final report.

In the case of the San Diego hijackers, for instance, the report disclosed that an FBI agent assigned to the Central Intelligence Agency wanted to pass on information to the FBI about the two men in early 2000 — 19 months before the attacks — but was blocked by a supervisor at the CIA and did not aggressively follow up. That set the stage for a series of bungled opportunities in an episode that many

officials now regard as their best chance to have detected or disrupted the Sept. 11 plot.

Many passages in the public version of the report were blacked out to shield information still considered sensitive by the government, and an entire 115-page section on one terror suspect was withheld.

The report provides new information about the FBI’s mishandling of a warning from an FBI agent in Phoenix in July 2001 about the danger of Middle Eastern extremists connected to Osama bin Laden using American schools to receive aviation training.

The report stopped short of recommending disciplinary action against any FBI employees.

WEATHER

Summer Arrives

By Jon Moskaitis
STAFF METEOROLOGIST

Remember that string of weekends in May, when it seemed the chilly, wind-driven rain and dark grey skies had taken on some sense of hopeless permanence, leaving you longing for even a taste of summer? Well, summer has arrived, and appears ready to compensate for all the sunshine and warmth we missed out on last month. For at least the next four days, a strong high pressure system anchored offshore will pump a continuous supply of hot, humid air into our region. Cooling showers and thunderstorms are unlikely to accompany the heat and humidity before late Monday or Tuesday, when a cold front approaches from the northeast. This front will bring a rainy end to the first heat wave of the year, but not before our temperature tops out above 90°F (32°C) over the weekend. After such heat, perhaps a cloudy day with a cool, maritime breeze will feel more refreshing than depressing.

Forecast:

Today: Mostly sunny, hot, and humid. High: 88°F (31°C).

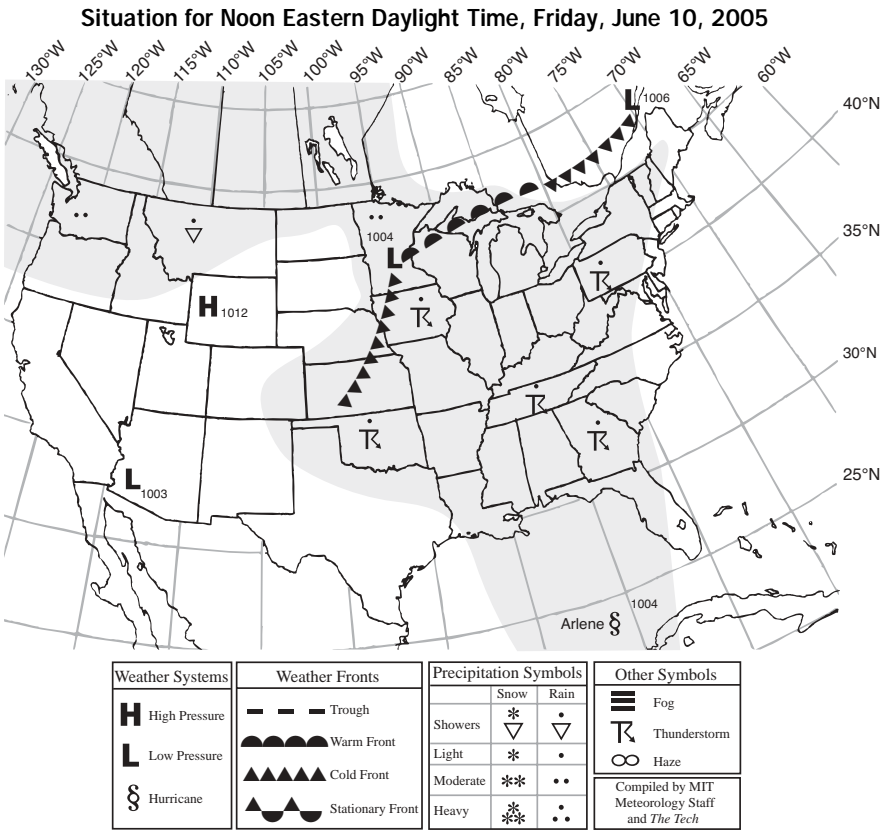
Tonight: Partly cloudy. Low: 66°F (19°C).

Saturday: Mostly sunny, slight chance of an afternoon thunderstorm. High: 86°F (30°C).

Saturday night: Chance of showers and thundershowers early. Low: 68°F (11°C).

Sunday: Sunny, hot, and humid. High: 93°F (34°C).

Monday: Afternoon showers and thunderstorms likely. High: 90°F (32°C).



Cigarette Company Trial Ends In Anger Over Proposed Terms

By Michael Janofsky
THE NEW YORK TIMES

WASHINGTON

The government’s nine-month racketeering trial against the nation’s leading cigarette companies ended on a tumultuous note Thursday as company lawyers accused the government of a last-minute change in the terms of a proposed national stop-smoking program.

The disagreement later spilled out of the courtroom into dueling news conferences. It also left major unanswered questions in a case that is certain to rumble on with paperwork for many more months before Judge Gladys Kessler of U.S. District Court issues her final ruling.

And for a second straight day, the case spurred an angry response on Capitol Hill, as Sen. Frank R. Lautenberg, D-N.J., demanded congressional hearings into how the Justice Department has handled the issue that caused the latest ruckus.

The eruption began in the final minutes of closing arguments when Sharon Eubanks, a government lawyer, provided new details of a \$10 billion stop-smoking program — to be paid for by the defendants if the judge rules

against them — that replaced the \$130 billion program the government had been seeking until earlier this week.

At that point, the stop-smoking program was the biggest financial hammer left to the government after an appeals court ruling in February that civil racketeering laws would not allow the government to seek \$280 billion in past profits from the companies.

Eubanks told the court that the new approach was aimed at helping people who would become addicted to cigarettes in the future, thus satisfying a critical legal requirement that any sanction in a civil racketeering case be forward-looking, intended to prevent and restrain future misconduct.

Implicit in her explanation was an acknowledgment that the previous approach, intended to help current smokers kick the habit, was backward-looking and, like the effort to get at past profits, inconsistent with the law.

Inside the court, company lawyers made spirited objections, insisting that they needed extra time to offer a suitable response to the government’s formal written pro-

posal of remedies, which is due next month. Kessler withheld judgment but agreed to consider the companies’ request.

After court ended, Associate Attorney General Robert D. McCallum Jr. offered reporters a more complete picture of the new request, saying it could actually cost the companies more than the original approach.

McCallum said the new program would require the companies to spend \$10 billion over five years and then \$10 million for every succeeding year when a court-appointed monitor determines that the companies are violating the law. He also said that current smokers could participate.

Ultimately, he said, “we’ll look to the judge to determine the number of individuals who can go forward.”

Minutes later, three company lawyers used considerably more colorful language than they had in court to criticize the government’s tactics and characterize the overall case.

“This is like a comedy skit on ‘Saturday Night Live,’” Ted Wells, a lawyer for Philip Morris, said.

Syrian Operatives May Have Plans To Assassinate Lebanese Leaders

By Steven R. Weisman
THE NEW YORK TIMES

WASHINGTON

The United States has received “credible information” that Syrian operatives in Lebanon plan to try to assassinate senior Lebanese political leaders and that Syrian military intelligence forces are returning to Lebanon to create “an environment of intimidation,” a senior administration official said Thursday.

The official said the information had come from “a variety of Lebanese sources” and that “we assess it as credible.” The information, he said, was gathered after the recent assassinations of former Prime Minister Rafik Hariri in February, and of Samir Kassir, a well-known journalist, a week ago.

Both were outspoken critics of Syrian domination of Lebanese politics, and Kassir had blamed Syria for the assassination of Hariri.

“This is a moment when many politicians are facing overt Syrian

intimidation in the middle of the election period,” said the official, referring to parliamentary elections being held last month and this month. “When Lebanese sources tell us that they are hearing that the Kassir killing will be followed by others, we take it seriously.”

It was clear that the official’s statements, which were offered to reporters from at least two news organizations, were a deliberate signal of the Bush administration’s continuing displeasure with the Syrian government’s role in Lebanon.

But intelligence officials said they could not immediately substantiate the reliability of the information cited by the administration official. A State Department official said that word of a “hit list” had been “circulating among the Lebanese” but that no one in the administration had actually seen such a list and that its existence could not be independently verified.

Since the Hariri assassination, which was widely viewed as carried out by Syria or its supporters, politicians opposed to Syria’s military presence over many decades and its influence generally have been on edge.

After the Hariri assassination, Syria came under renewed pressure to remove the 14,000 troops stationed in Lebanon at the time, and it has said that it completed the job. But a “verification team” sent by the U.N. Security Council, which demanded the troops’ removal, was never able to confirm that military intelligence operatives had left.

Secretary of State Condoleezza Rice, in an interview on Thursday with Charlie Rose for the Public Broadcasting System, said that “military forces are out” of Syria but that “some of us have our doubts” about intelligence forces “and we need to keep pressure on the Syrians to be transparent about what they’re doing in Lebanon.”

Fed Fights for Higher Interest Rates, But Mortgage Rates Hit 30-Year Low

By David Leonhardt
THE NEW YORK TIMES

For the past year, the Federal Reserve has been conducting a relentless campaign to raise interest rates. And over that same year, the rates that matter the most to many people mortgage rates — have fallen to near 30-year lows.

Low mortgage rates have lifted the nation’s long housing boom to a new level, creating jobs and wealth but also worries that some local markets have turned into bubbles. Mortgage refinancing has also taken off again, injecting cash into households at a time when incomes are growing little faster than inflation for most workers.

“It’s been fantastic,” said Ed Schreyer, a 38-year-old executive in Cincinnati who has refinanced his mortgage seven times since buying his home in 2001 and refinanced the mortgage on a Colorado vacation home twice since buying it in 2003. “It’s more cash in my pocket and less money going out the door.”

Testifying before Congress on Thursday, Alan Greenspan, the Fed’s chairman, called the current situation “clearly without recent precedent.”

Even as the Fed has lifted its benchmark short-term rate eight times since last summer in an effort to choke off inflation, the average rate on a conventional 30-year mortgage has fallen to 5.65 percent, from 6.34 percent, according to <http://www.Bankrate.com>. Mortgage rates have not been this low since 2003, when they already were the lowest in at least three decades.

In his testimony, Greenspan warned that the American economy faces significant imbalances and made it clear that the Fed is not yet finished ratcheting up interest rates.

In effect, the bond market — where long-term interest rates, including those for mortgages, are set — is stimulating the economy while the Fed is trying to stabilize it. “Since I’ve been in the business since the mid-1980s, this is the biggest disconnect between the bond market and the economy I’ve ever seen — easily,” said Ethan Harris, the chief U.S. economist at Lehman Brothers and a former Fed staff member. “You’ve got almost the exact opposite response in the bond market from the normal response.”

Although they have vexed policy makers and economists, falling long-term rates have benefited Americans across the economic spectrum.

Bernard Post recently locked in a low mortgage rate for the next 30 years on a house in East Hampton, so he would not have to worry if rates finally did start rising. “Essentially what I’m doing is buying some certainty in an uncertain world,” said Post, 62, a lawyer in Manhattan.

Calvin S. Jackson, a 53-year-old college math teacher in Atlanta, decided he would start looking to buy his first house even though home prices have been rising. “The current market makes it very, very encouraging to borrow money, to take a chance and buy a home,” Jackson said. “This is the time to move.”

The list of reasons for the falling rates is both long and controversial, taking in everything from the aging of the population to the growth of China. Economists generally argue that investor psychology also plays some hard-to-define role and that rates will soon rise. But they have been making similar predictions for the last year.

Panel Supports Cuts in Public Broadcasting Aid

By Stephen Labaton
THE NEW YORK TIMES

WASHINGTON

A House Appropriations panel on Thursday approved a spending bill that would cut the budget for public television and radio nearly in half and eliminate a \$23 million federal program that has provided money for producing children’s shows, including “Sesame Street.”

A House Appropriations subcommittee adopted a measure that would reduce the financing of the Corporation for Public Broadcasting, which directs taxpayer dollars to public television and radio, to \$300 million from \$400 million.

The cuts in financing went beyond those requested by the White House and are likely to be approved next week by the full Appropriations Committee and then by the House. Lobbyists for public television and radio say they hope to have the money restored in the Senate’s version of the bill, thanks to support from several senior Republican senators.

Republicans said the cuts were not aimed at punishing public broadcasting but were the reality of preparing budgets at a time of growing deficits.

But Democrats took a different view. “It is clear the GOP agenda is to control public broadcasting or to defund it,” said Rep. David R. Obey of Wisconsin, the senior Democrat on the committee.

Acelas and Food Service: Amtrak Explains It All to Congress

By Matthew L. Wald
THE NEW YORK TIMES

WASHINGTON

The brakes on the Acela high-speed trains could handle the BIP but not the BOP, a senior vice president of Amtrak said on Thursday, and that is why the pride of the railroad’s fleet has been sidelined since mid-April. But the trains will start returning by July, he said.

A top priority will be restoring service between New York and Boston, William L. Crosbie, the senior vice president for operations, said.

Testifying before the railroads subcommittee of the House Transportation Committee, Crosbie said Amtrak and the company that built the brakes have tentatively concluded that the cracks in the spokes that connect the brake disks to the axles were caused by a previously unknown phenomenon, called “bending out of plane,” or BOP, instead of the usual “bending in plane,” or BIP. Crosbie said that meant the disk was wobbling slightly from side to side when the brakes were applied, like a warped phonograph record.

He said that Amtrak and a German company, Knorr-Bremse, which supplied the brakes, would replace the disks with a new part, and they would be inspected frequently.

Meanwhile, Amtrak has substituted older Metroliner trains for all its Acela trains between New York and Washington, but has sharply cut back service on the northern half of its Northeast Corridor.

In Defeat for Spitzer, Broker Acquitted of Improper Trading

By Riva D. Atlas and Reed Abelson
THE NEW YORK TIMES

NEW YORK

A former broker with Bank of America was acquitted Thursday of 29 counts tied to improper trading in mutual funds, the first major legal defeat for Eliot Spitzer, the New York attorney general. A mistrial was declared on four remaining counts.

The broker, Theodore C. Sihpol III, 37, had been accused of enabling a hedge fund manager, Edward J. Stern, to make improper trades in mutual funds. It was a tip about trading by Stern’s hedge fund in 2003 that initiated a sweeping investigation of the mutual fund industry by the New York attorney general, joined by the Securities and Exchange Commission and other regulators.

Sihpol, while a relatively low-level figure, was the first executive to be brought to trial in that investigation. The attorney general, who has made his name largely on large and ground-breaking settlements over abuses in financial services, had never before had his office tested in a major courtroom battle.

Some lawyers said Thursday that the verdict was a significant setback for Spitzer, who is seeking to run as the Democratic candidate for governor of New York next year.

“I think this is a major blow to Eliot Spitzer and his campaign against Wall Street,” said Robert G. Heim, a former lawyer with the Securities and Exchange Commission, who is now a partner at Meyers & Heim.

For Voles, a Cheatin’ Heart Might Be All in the Genes

By Nicholas Wade
THE NEW YORK TIMES

Some male prairie voles are devoted fathers and faithful partners, while others are less satisfactory on both counts. The spectrum of behavior is shaped by a genetic mechanism that allows for quick evolutionary changes, two researchers from Emory University report in Friday’s issue of *Science*.

The mechanism depends on a highly variable section of DNA involved in controlling a gene. The Emory researchers who found it, Elizabeth A.D. Hammock and Larry J. Young, say they have detected the same mechanism embedded in the sequence of human DNA but do not yet know how it may influence people’s behavior.

Voles, not to be confused with the burrowing, hill-making mole, are mouselike rodents with darker coats and fatter tails. The control section of their DNA expands and contracts in the course of evolution so that members of a wild population of voles, the Emory researchers have found, will carry sections of many different lengths. Male voles with a long version of the control section are monogamous and devoted to their pups, whereas those with shorter versions are less so.

The control section affects the activity of a gene that determines how the vole responds to the hormone vasopressin.

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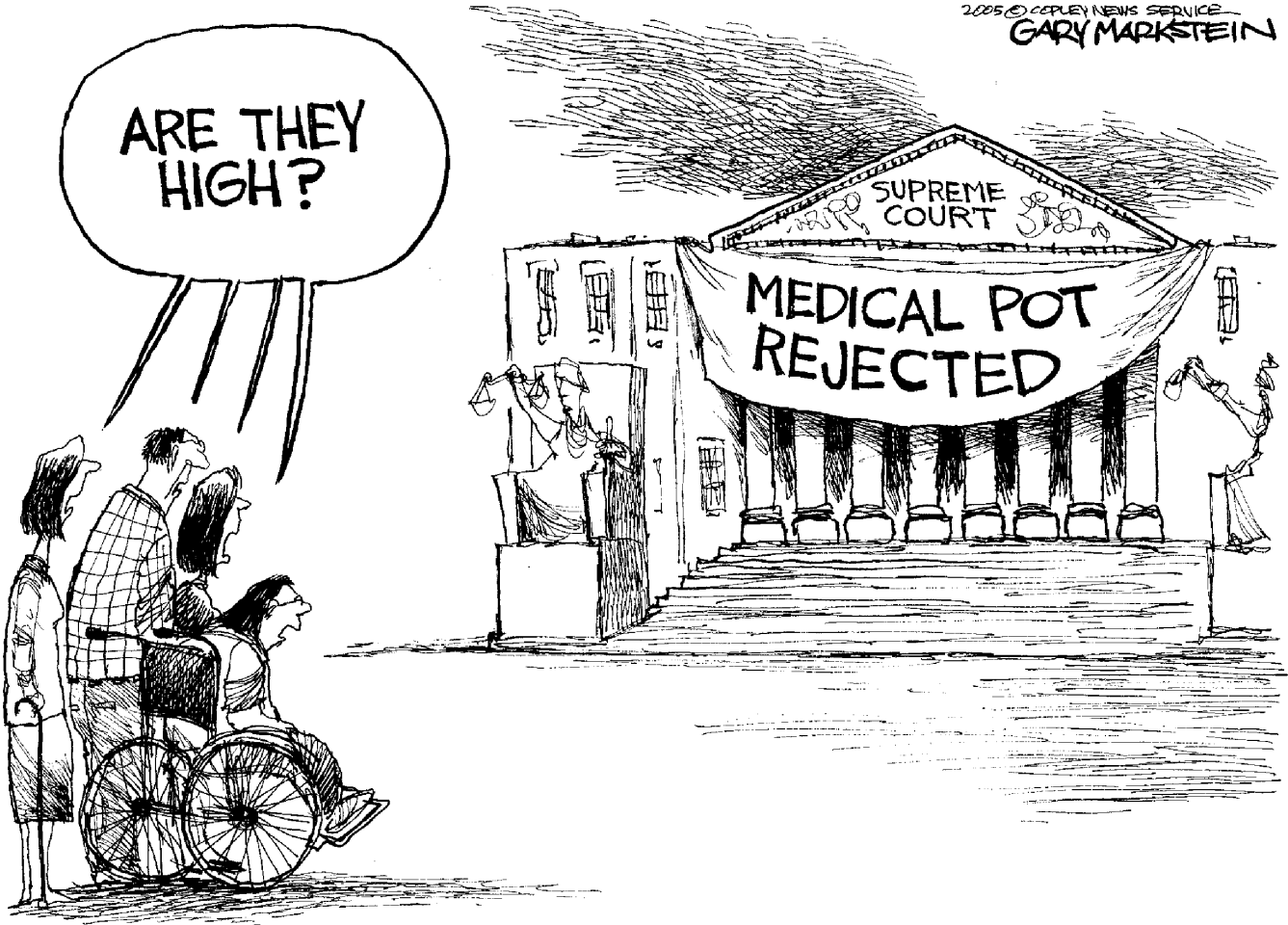
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“Here’s the latest one we’ve come across.”

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Errata

The May 10 table “Fall Reassignment Statistics” incorrectly stated the total number of housing moves granted in 2003 and 2005. The totals should have been 120 for 2003 and 72 for 2005, not the other way around.

The June 3 photographs on page 16 were incorrectly identified in the caption. The caption described photographs in the order top left, bottom right, bottom left, top right, not clockwise from top.

Teaching the Constitution

Like an Engineer

Ruth Miller

The U.S. Constitution was born in Philadelphia to laud and adulation, but Constitution Day was made by covertly piggybacking onto a massive spending bill in 2004. Now, the Department of Education has outlined its plans for the little-known provision. Starting this fall, every school and college that receives federal money must teach about the Constitution on September 17, the anniversary of the Constitution’s adoption in 1787.

The senator responsible for the piggybacking, Robert C. Byrd, hopes “that schools will develop many different, creative ways to enable students to learn about one of our country’s most important historic documents.” Neither the Department of Education nor Congress has created specific curricula or interpretations for September 17, and the Department of Education seems to be favoring an honor system over labor-intensive, and expensive, documentation.

This new mandate has many education groups worried. Becky Timmons, senior director for the government relations at the American Council on Education, the leading lobbying group for colleges and universities, presents one of these concerns well: “If the justification is that the Constitution is so central to our democracy, couldn’t somebody else come along and say, ‘Well, I think the history of American architecture is quite important.’”

Another frequent concern is the difficulty

classes will have integrating the Constitution into their lesson plans on the set date. Dan Fuller, director of federal programs for the National School Boards Association, says that many schools may have to interrupt lesson plans — “You may have to leap from the Civil War or Vietnam to the Constitution ... We don’t need federal micromanagement. Congress has been acting more like a school board.”

How will MIT, an engineering school that receives federal funds, address the new requirements? Some subjects, naturally, will have more trouble adapting their curriculum

than others. For instance, 11.011 (The Art and Science of Negotiation) will have a much easier time relating itself to the Constitution via checks and balances than perhaps 21J.458 (The Bible). Perhaps not. Either way, below are some hypothetical lessons for a sampling of MIT classes.

1.212J (Introduction to Intelligent Transportation Systems) — Some of these classes will be more difficult to apply the Constitution to than others. The Big Dig should be ignored by all means.

2.691 (Wave Scattering by Rough Surfaces and Randomly Inhomogenous Media), 16.400 (Human Factors Engineering) — An introduction to the public relations campaign and cable news network.

3.091 (Introduction to Solid State Chemistry) — The study of a system that inputs energy generation and storage, e.g., batteries and fuel cells, and emerging technologies, e.g., photonic and biomedical devices, only to

forsake both for misinformation and emotion.

4.220 (Urban Housing: Paris, London, New York) — Comparing the responses of local societies and governments to housing shortages, explain why U.S. privatization is still number one!

4.305 (Advanced Visual Arts Studio) — The original paper version of the U.S. Constitution is still on display in the National Archives. Design a new form for the text of the U.S. Constitution to challenge citizens by both synthetic and critical models of production.

5.79J (Glycomics) — After an introduction to “glycomics,” the field that describes how complex carbohydrates modulate protein function and thereby influence fundamental biological processes, students determine if it is better for advanced high school students to be exposed to this and other advanced subjects, or if more resources should be diverted to helping slower students reach minimum federal standards.

6.034 (Artificial Intelligence) — This one’s too easy.

6.041 (Probabilistic System Analysis) — Given the state you live in, the number of electoral votes held by your state, and your state’s voting record, does your vote influence a national election?

7.012/7.013/7.014 (Introductory Biology) — Students will conduct laboratory work to solve some of the great political questions of the last 219 years, including, but not limited to: discerning when life begins (at birth or at conception), and proving or disproving the theory of evolution.

8.01 (Introduction to Classical Mechanics) — How do Newtonian physics apply to federal spending? Can spending be conserved?

9.98 (Neural Plasticity in Learning and Memory) — Are the current term lengths required by the Constitution advantageous

given the ability of large groups to collectively retain information, and if so, advantageous to whom?

12.000 (Solving Complex Problems) — Find a better way to fulfill the duties of Article I Section 8 Subsection 3: To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.

17.03 (Introduction to Political Thought), 21H.311 (The Renaissance: 1300-1600), 21L.450 (Literature and Ethical Values), 21L.463 (Renaissance Literature) — As all these classes are returned by a subject search for “Machiavelli,” they could address the author’s championed, and oft-demonized, consequentialism, and any impact “The Prince” may have made on the U.S. Constitution.

18.386J (Advanced Nonlinear Dynamics and Chaos) — Introduction to the tax system.

18.504 (Seminar in Logic) — The text of the Constitution directly contradicts itself between Article I Section 8 Subsection 18 and Amendment 10. Taught in conjunction with 21H.116J (The Civil War and Reconstruction).

21L.007 (After Columbus: Literature of Exploration, Exile, and Cultural Contact) — The United States Constitution, written in 1789, is the oldest written national constitution currently in effect.

21L.011 (The Film Experience) — The obvious choice is a showing of the musical comedy “1776.” Possible alternatives include “A Clockwork Orange,” “Full Metal Jacket,” or “Dr. Strangelove” — the possibilities are endless.

21M.600 (Introduction to Acting) — The qualifications to run for elected office.

24.309 (Language and its Structure III: Semantics and Pragmatics) — The application of outdated words and phrases, such as “shall,” “chuse,” and “Department of War.”

Misunderstanding the Impact of China’s Rise on American Power

Ali Wyne

Both in mainstream media and in policy-making circles, there is growing alarm that China may well be poised to replace the United States as the world’s solitary superpower. In the July 4, 2004 issue of *The New York Times Magazine* Ted Fishman argued that China is primed to succeed the United States as the world’s “capitalist engine.” Gary Schmitt, executive director of the influential think tank Project for a New American Century issued a sobering assessment of Chinese belligerence in 2003 in *The Weekly Standard*: “... there should be no philological impediment to calling China what it is: a large empire with even larger imperial ambitions.” Indeed, predictions of a “new Cold War” between the United States and China during the forthcoming decades are now staples of mainstream discourse on Sino-American relations. Thankfully, the school of thought which fears China’s unconstrained rise rests on fallacious thinking. Namely, it ignores three crucial points:

Even judged by the two crudest metrics of conventional power, Gross Domestic Product (GDP) and military capability, China does not, and will not, likely pose a serious threat to the United States.

In the new international order, in which the United States no longer reigns supreme, even if a nation-state or coalition of nation-states were to replace the United States as world superpower — a highly remote but theoretically crucial consideration — it would almost assuredly have to practice, at least roughly, a mixture of capitalist economics and democratic governance, which China does not.

The appearance of an increasingly powerful China conceals the nature and depth of crises which it will face in the forthcoming decades, crises which, at this juncture, exhibit no signs of mitigating or even reversing course.

A 2003 report by Goldman Sachs in *Global Economics Weekly* concludes that China’s GDP could surpass that of the United States by 2039; however, the same report finds that by the halfway point of the century, China’s

GDP per capita will still be \$50,000 less than that of United States. The latter, relative measure is of far greater importance, because it measures, roughly, the welfare of the individual, something that an absolute figure such as GDP obscures. Until China’s per capita GDP exceeds that of the United States — a highly improbable prospect — there is little reason to worry that its economic expansion will threaten America’s economic viability in the foreseeable future. As for its military expansion, China, far from posing a threat to the United States’ global military posture, is not even ready to usurp its presence in East Asia. According to an article in March by Joshua Kurlantzick in *Prospect*, China spends \$20 billion annually on national defense, while the United States spends approximately \$416 billion. Indeed, Tim Ferguson, a registered Republican who served as Maryland Senator from 1995 to 2003, contends in his online “Ferguson Report” that “China is at least 30 years away from becoming a serious military threat.” China is, at present, largely occupied with maintaining its military superiority over Taiwan; only when Sino-Taiwanese tension abates — an unlikely prospect, at least in the short-term — will it be able to consider the possibility of projecting its military prowess beyond East Asia.

Of more value than analyzing these power metrics is assessing China’s future position in the world. The international order, while flexible enough to accommodate gradual changes, is rarely stable enough to recover from abrupt ones. The twentieth century witnessed the steady rise of democratic movements worldwide, and with that, the virtual antiquation of communism and its more virulent accomplice, totalitarianism. As world superpower, the United States has been a source of stability, in large part because of its practice of democratic governance. Author Fareed Zakaria, while acknowledging democracy’s potential ramifications, concludes in *The Future of Freedom* that “democracy is the sole surviving source of political legitimacy.” Besides China, the multiplicity of powers which will shape the new international order — the United States, the European Union, Russia, and India — are established democracies, transition democra-

cies, or, at the very least, nascent democracies. China fits none of these categorizations. Indeed, at least judged by its structure of governance, China would be a pariah nation-state were it to preside over these other four powers. Furthermore, China’s government is characterized by weak underpinnings and endemic corruption, political deficiencies which some believe could very well threaten its survival.

Consider also that even if it were to assume the position of world superpower, China would have few meaningful alliances. Its relations with India have been greatly strained since the two countries went to war in 1962; India’s and China’s awareness of the other’s growing power has certainly not helped to reduce this tension. The Sino-Soviet

rift, bred during the Cold War, is unlikely to heal any time soon. The mistrust between China and United States is by now an entrenched part of their diplomatic relations, and has little chance to dissipate with China’s continued hostility towards Taiwan and its growing economic standing in the world. Furthermore, the Sino-European relationship is effectively one-dimensional, consisting of budding economic ties; without an established military or political dimension, it is hardly worthy of the title “alliance.” It is quite likely that the United States, the European Union, Russia, and India would cooperate to undermine China’s leverage, with marked success. In a new international order, in which multipolarity prevails and sets forth a new set of challenges for its principal shapers, a nation-state which practices communist governance will assuredly be precluded from assuming a position of dominance.

Of equal, if not greater importance, is that China faces a host of serious internal crises. The income gap between China’s urban and rural populations continues to grow, and as economic globalization accelerates, will likely

grow even further. In 1985, for example, urban residents possessed approximately 1.9 times the level of disposable income of their rural counterparts; by 2003, that figure had risen to 3.1. According to a study by the Asia-Pacific Center for Security Studies, although China’s leadership has been accorded primacy to urban development, continuing to do so threatens to foment “widespread instability in rural areas” and exacerbate “massive internal migration.” Furthermore, according to Joseph Kahn of *The New York Times*, China is aging more rapidly than any nation-state in history; indeed, “China will have to grapple with the same age-related fiscal, social and productivity challenges of countries with several times its per capita income.” Perhaps most worri-

some, China is primed to experience an AIDS epidemic which, if not properly addressed, could have catastrophic socioeconomic ramifications. Reliable estimates suggest that the incidence of HIV among the Chinese population is growing by 20 to 30 percent annually; if the Chinese government continues to blind its pub-

lic to the consequences, indeed the existence of HIV/AIDS, the emerging epidemic will likely exact even more devastating costs. Just to ensure its status as a player in the new international order, let alone a major one, China will have to address these, and other tinderboxes, each of which is truly daunting.

Much of the misunderstanding of China’s rise interprets its ascendant regional presence as a threat to the United States’ global power. The only legitimate threat which China poses to America is economic in nature, and even so, it will have to grapple with severe internal crises, outlined above. As such, those who warn of a “new Cold War” and advise the United States to formulate its policies towards China accordingly are unnecessarily fomenting tension between the two countries and endangering the security of their citizens.

China’s government is characterized by weak underpinnings and endemic corruption, political deficiencies which some believe could very well threaten its survival.

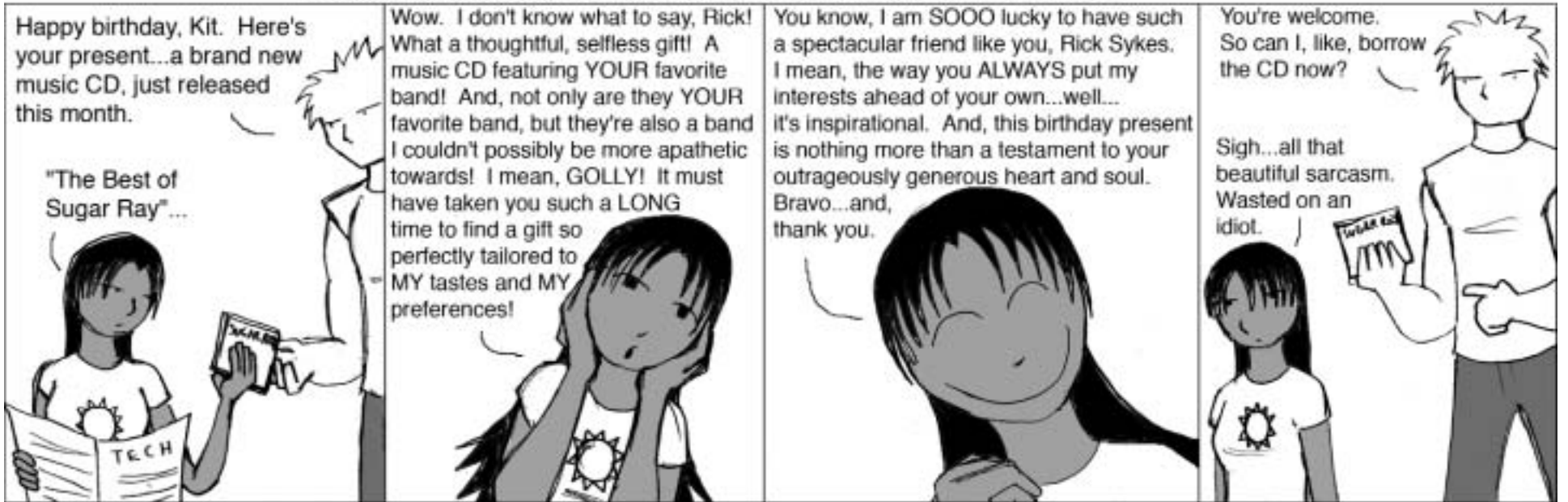
If you have an opinion, we want to hear it!

letters@tt.mit.edu

Trio

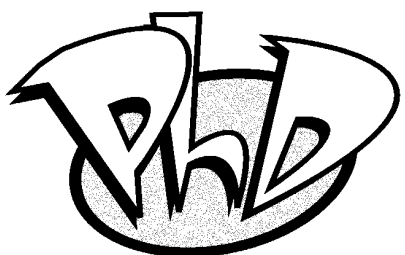
Previews of next year's TRIO characters: ALUM.MIT.EDU/WWW/EMIE

by Emezie Okorafor

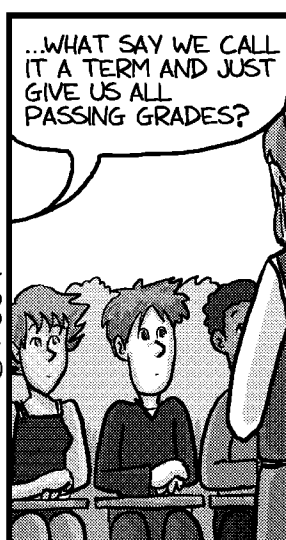


BizToons

BY JENNIFER LÓPEZ



PILED HIGHER AND
DEEPER



FoxTrot

by Bill Amend

Dilbert®

by Scott Adams

Crossword Puzzle

Solution, page 13

ACROSS

- 1 Charged particles
- 5 Sugar source
- 9 Supports
- 14 Happy starter?
- 15 Dieter's word
- 16 Hank of baseball
- 17 Volcanic outflow
- 18 Chills and fevers
- 19 Light olive brown
- 20 Start of quote by astronaut David Wolf from Mir
- 23 Vietnamese holiday
- 24 Places at the table
- 25 Theater employees
- 27 Homer's sea
- 30 Division word
- 31 Managed
- 32 Part 2 of quote

- 38 Lawn makeup
- 41 19th letter
- 42 Scandinavian
- 43 Part 3 of quote
- 46 Hardened
- 47 Holliman of "Police Woman"
- 48 Off the boat
- 51 Kind of hat
- 54 Colorful tropical fish
- 56 Pers. pension
- 57 End of quote
- 62 Roast host
- 64 Scottish Gaelic
- 65 Pouting grimace
- 66 Apple centers
- 67 Salacious stare
- 68 Water vessel
- 69 Put up
- 70 Fewer
- 71 Unit cost

DOWN

- 1 Anglesey or Skye
- 2 Norwegian saint
- 3 Church part
- 4 Meager
- 5 Egregious
- 6 "___ Days a Week"
- 7 Needle cases
- 8 Adolescent
- 9 Neighbor of Iran
- 10 Collegiate cheer
- 11 Sermonize
- 12 Hearth implement
- 13 States of agitation
- 21 Vote of endorsement
- 22 Sticky stuff
- 26 King of the road
- 27 Jason's ship
- 28 Deserve
- 29 Itsy-bitsy biter
- 30 Part of MIT
- 33 Make well

- 34 Neighbor of Syr.
- 35 Approximately
- 36 PC operator
- 37 Beret filler
- 39 Mets stadium
- 40 Most sordid
- 44 Notable times
- 45 Danbury madmen?
- 49 ___ Lanka
- 50 "If I Had a ___"
- 51 Cake cut
- 52 Knight's outfit
- 53 Mother-of-pearl
- 54 ___ Mile Island
- 55 Comforts
- 58 In good health
- 59 Hawkeye State
- 60 Tallow source
- 61 Parched
- 63 Common Market abbr.

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ARTS

CONCERT REVIEW

‘Boston Pops’ Aimless Without the Maestro

Film Night Pays Tribute to John Williams

By Kevin Der
ARTS EDITOR
Hooray for Hollywood
Boston Pops Orchestra
Bruce Hangen, conductor
Symphony Hall
May 25-28, 2005, 8 p.m.

When dealing with music, tradition is a more vital component than many might think. Take Tchaikovsky and St. Petersburg, or the Beatles and Abbey Road. These legacies were a glorious thing. Sadly, this season of the Boston Pops has lost such a powerful treasure. To my knowledge, this will be the first year since 1980 that will not see John Williams conduct at Symphony Hall.

The man has written over a hundred film scores and dozens of orchestral works including Olympic themes, received over 40 Academy Award nominations, and conceived the most memorable themes in history to accompany the motion picture. We all remember hearing “E.T.” for the first time, as well as “Indiana Jones,” “Schindler’s List,” “Jaws,” and most recently, the completion of the “Star Wars” saga.

Yet those who are only familiar with Williams’ works for flight and frenzy have missed an entire side to his compositions. Listening to “Jazz Autographs” from “The Terminal” is like floating away on a cloud; he wrenches our hearts with “The Seduction of Suki and the Ballroom Scene” from “The Witches of Eastwick”; shockingly gorgeous dissonance lies within his themes for “Presumed Innocent.” He is a master of orchestration, always aware of our emotions and which notes will bring us to tears or send us soaring into the air.

As conductor of the Boston Pops orchestra between 1980 and 1993, Williams brought film music to Boston’s ear while establishing himself as a public figure. When he left the orchestra, he still returned every year to conduct, sometimes premiering works from his most recent scores. Even though we might often hear the same repertoire, every concert is a completely unique experience, so commanding is his presence in the Hall. This tradition continued until this year, when Williams had to excuse himself from conducting several film music concerts due to his

commitment to post-production scoring on Spielberg’s upcoming “War of the Worlds.” As yearning as we are for this new score, his absence was tremendously disappointing, but he can’t be blamed.

Yet the lack of the Maestro was certainly the cause of the mediocrity that resulted from these concerts. Bruce Hangen substituted as the principal Pops guest conductor. Though competent, he simply had neither the command nor the sagacity to fill the void. He treated the evening as mere entertainment, as if each piece were a treat, ignoring the subtleties of soft, moving passages, and turning every action cue into rushed bombast. He was not entirely to blame; the orchestra just didn’t have all of its heart without its beloved father.

In a rather random selection, three pieces filled the first half of the concert. Walton’s “Prelude and Fugue” from “Spitfire” was first; it began with some half-hearted brass dissonance, followed by an engaging, well-played cello melody soon forgotten by an unfortunate trumpet flub. A ternary “Fugue” passed around its rapid subject mostly among the strings, which had difficulty staying together across instruments, then entered a very beautiful violin solo, and finally concluded with another conversation. Uninspiring selections from Shostakovich’s “The Gadfly” then followed. Finally, the worst piece of the night was Milhaud’s “The Ox on the Roof,” a piece written in a Brazilian cafe commissioned for an unknown film. It featured a jaunty motive primarily performed in the horns, accompanied by dissonant ramblings in the piccolos. The Pops chose to perform this piece to Charlie Chaplin’s film “Caught in a Cabaret.” By itself, either work might have been enjoyable, but together they formed a misaligned bundle of confusion that was ineffective as both music and picture.

The second half was what everyone had come to hear, a tribute to John Williams. As expected, most of the repertoire was the standard fare performed almost every year. With Hangen conducting, the evening might have gone completely to waste. Perhaps the saving grace was snippets of a taped interview with Williams solely for these concerts, as a sort of consolation. As each piece was performed, we got to hear a few words from Williams regarding its background or conception.

Generally, the orchestra struggled with

tempo and balance issues for the entire second half. The “Main Theme” from “Star Wars,” a well-known concert arrangement that begins with the main titles and “Blockade Runner” and then segues into the end titles, was rather poorly performed. The bells were too loud and the tempo was too slow. Hearing Princess Leia’s theme was the only satisfying portion of the piece. A suite from “Harry Potter and the Prisoner of Azkaban” then followed; it was not “new” as the online program description claimed, but rather was simply a series of existing arrangements played in a different order from past concerts. As a severe disappointment, “Hedwig’s Theme” turned out to not be the concert version, but a watered-down portion of it that only featured the theme on celeste. “The Knight Bus” lacked the proper jazz instruments demanded by the score, and was performed too slowly. Finally, “Witches, Wands, and Wizards” was a suite performed last summer at Tanglewood, consisting merely of two cues blended together — the far under-tempo “Snowball Fight” and the hummingbird passage from “Secrets of the Castle.” We didn’t get an orchestral “Double Trouble, or Buckbeak’s Theme.” Compared to the unforgettable, glorious performance of “Harry’s Wondrous World” and “Fawkes the Phoenix” last May by Williams, this rendition was anything but.

The theme from “Jaws” was accompanied by laughter from the audience, unbelievably, upon hearing the low strings’ notes. There was even some loud cheering when the “Flying Theme” from “E.T.” began, which was even worse for the listener. Tamara Smirnova’s violin solo for “Schindler’s List” was beautiful as usual, but it failed to captivate me completely, as Hangen simply let the music run on auto-conductor. This is Williams’ most tearful theme, and I sat there wishing my ears were hearing more, imagining all the other times I had heard this same expert violinist play these notes when it had moved me so much more powerfully.

The suite from “Close Encounters” was actually quite good, transitioning smoothly from its dissonant swells, to the five-note communication motif, concluding with the full orchestral grandeur accompanying Roy’s departure.

We got three encores after rather luke-

warm applause concluding the regular program. The first was the “Raider’s March” from “Indiana Jones.” There is a phenomenon that occurs whenever this encore is played that consistently ruins the performance. The first notes of this concert version are an introduction from the low brass preceding the first statement of the theme. Anyone who knows John Williams’ music can identify this piece just from these first few notes. Unfortunately, most of the audience has no idea what the piece is until the trumpets begin the actual theme ten seconds in, and at that point, they finally identify it and burst into widespread applause, completely obscuring the orchestra. Why this occurs every single time this encore is played is beyond me, but it is my naive hope that some day I’ll be able to hear this piece live without such an absurd and distracting reaction from the audience.

The next encore, which I had been anticipating, was “Battle of the Heroes” from the “Revenge of the Sith.” This is an amazing piece, but it requires a full choir, which was not present. Rather than perform some new arrangement, the Pops chose to simply omit the chorus completely. As magnificent as the piece was, with its rapid trumpet notes and induced visions of Anakin and Obi-Wan’s lightsaber duel, it was flat in some places where the choir was the main ingredient. Overall, though, it was the best piece of the evening, and fantastic to hear live. The third encore, an orchestral “Cantina Band,” was very poor, with wrong notes of every kind, obfuscation of melodic lines, and in a sickening fashion, rhythmic clapping on the beat from the audience.

All these mistakes were simply due to the absence of Williams. To the casual listener, this concert might have been wholly pleasing, offering a first-time live performance of movie favorites. But whereas Hangen saw the evening as mere entertainment, Williams understands that a conductor is the caretaker of art — a substance of enormous power. We can only hope he will again inspire us next year at Symphony Hall.

Luckily, all is not lost — Williams will perform at Tanglewood later this summer, and the Pops season extends through July 4, concluding that evening with the usual fireworks celebration and Tchaikovsky’s glorious “1812 Overture.”

RESTAURANT REVIEW

Sugar & Spice Offers Something Nice

A Porter Square Thai Restaurant Worth Trying at Lunchtime

By Kathy Lin
CONTRIBUTING EDITOR
Sugar & Spice
1933 Massachusetts Avenue
Porter Square, Cambridge
617-868-4200

After signing a lease for a Porter Square apartment, I committed myself to visiting as many of the local restaurants as I could. When I spotted Sugar & Spice, a quick two-minute walk from the T, I hoped I’d love it. Thai dishes — or noodles, more accurately — are among my favorites, and with their reasonable prices and great location, it seemed like a place that I could easily visit over and over. I was not disappointed.

With a somewhat western, somewhat new-age feel, the atmosphere is classy, modern, and clean, but not to the point that it feels cold or aloof. The walls are painted in refreshing colors and adorned with beautiful fresh flowers, while the furniture seems to flow through the restaurant.

The food at Sugar & Spice is infused with flavor at prices only slightly higher than those at the closer, blander Thailand Cafe. At lunch, most entrees, generous in size, range in price from \$5.95-6.25, with just a few dishes stretching near \$8. The dinner prices are generally a few dollars more. (The prices quoted

in this review are lunchtime prices.)

Everything is also beautifully presented, with meals appearing on a variety of triangular, square, and rectangular plates, garnished with flowers and vegetables. I remember my jaw dropping the first time I saw a neighboring table receive an order of fried bananas. Who would have thought that fried fruit could be so elegant?

My first meal there was the Sugar & Spice Noodle (\$6.25); if it’s named after the restaurant and includes the words “chef’s favorite” in the description, it must be good, right? Indeed it was. With egg, chicken, and lettuce on flat noodles with a flavorful sauce, the dish is like Pad See Yu with the added flair of the chef’s special touch.

The Pad Thai (\$6.25) — which I have to try at every Thai restaurant — is quite good, with just the right mix of sugar and spices. Compared with other Thai restaurants that I frequent, their Pad Thai was about on par with that of the King & I by MGH, better than that of Smile Thai Cafe in Harvard Square, and much, much better than the suspiciously white Pad Thai at Thailand Cafe.

The Chicken Udon Noodles (yet another noodle dish at \$6.25) are also quite tasty; I think I once had them two days in a row. There were too many vegetables for my taste, but then again, if you were to ask my mom, she

would probably say that there weren’t enough.

The one dissatisfying noodle dish that I’ve had is the Noodle Soup with Chicken (\$5.95 — is that what I get for paying \$0.30 less?) I had ordered the Noodle Soup with Roasted Pork, but had to change my order when the waiter returned, saying that they did not have roasted pork that day. What I was left with was a bland bowl of soup with plain noodles and flavorless chicken. Let’s just say I was quite envious of my boyfriend’s Pad Thai.

I haven’t yet been adventurous enough to reach beyond my noodle-based comfort zone, but my dining companions have told me that their meals of Lovely Couple (\$6.25), Three Friends (\$6.50), and others were quite satisfying.

The frozen drinks and bubble tea are definitely worth trying as well. Presented like your favorite alcoholic smoothie from The Cheesecake Factory, these sweet goodies come in almost 20 different flavors. I suspect they’re made from powder, which I usually hate — I’ve seen large Rubbermaids of various colorful substances — but I’ve generally been pleased with the product and have continued ordering them.

Taking a step backwards, their appetizers are just about what one might expect out of good Thai appetizers; their Summer Roll (\$4.95), Shumai (\$4.95), and Simply Surprise

(\$4.95) are all sufficiently tasty and generous in size, though nothing more than what you’d find at your average good Thai restaurant.

There are a few drawbacks worth mentioning. The waitstaff varies quite widely in friendliness, with some offering gentle, patient service and others exuding a no-nonsense, impatient air. Like the roasted pork that stood between me and my desired dish, ingredients (particularly tapioca balls for the bubble tea) are missing more often than at most restaurants.

Nonetheless, the food and atmosphere make the restaurant worth a visit. If you’re interested, I’d recommend going for lunch. As far as I can tell (not that I’m an expert — I’ve only lived there for three weeks), Porter Square is a fairly residential area, meaning the local restaurants are empty during the day, but crowded at night when the neighborhood residents come home for dinner. Besides, the prices are lower and the portions are still generous. Doesn’t your wallet like the sound of that?

Directions: Take the Red Line T to Porter Square. Upon exiting the T stop, walk up Mass. Ave. towards the Dunkin’ Donuts. Sugar & Spice is two stores down. On a nice day, take a walk straight up Mass. Ave. through Central, Harvard, then Porter. You’ll be there in under an hour.

Mass. Ave. Construction Plans Include GSC Feedback

By Beckett W. Sterner
NEWS EDITOR

The City of Cambridge has agreed to change parts of its design for Massachusetts Avenue after discussions with the Graduate Student Council.

All of the changes apply to the stretch of Mass. Ave. between Vassar Street and Amherst Street. They include not narrowing the crosswalk at 77 Mass. Ave., improving the lighting, installing an educational program on bike path use, and making better pavement markings.

The biggest change will be the reduction from four lanes of traffic to three between Vassar and Amherst, converting what would have been a second lane of southbound traffic into a taxi stand and a stopping lane for SafeRide. The change is feasible because a recent traffic study of the stretch of road showed that removing the fourth lane would not significantly hamper traffic flow, said Susan E. Clippinger, director of traffic, parking, and transportation for Cambridge.

The stopping lane will help pre-

vent taxis from making U-turns to pick up passengers and will give SafeRide an additional place to stop that was not in the initial plan, said former GSC President Barun Singh G.

The Vassar Street intersection will still have four lanes of traffic, but the southbound two will merge into one shortly after, and return to two lanes after Amherst.

The change “is almost certain, I think, but [Cambridge officials] still have to send a letter” to get the state’s approval, Singh said.

Clippinger said that the plan had the full support of the City, but she

was not certain that the state would approve the plan.

MIT supported GSC suggestions

The GSC’s advocacy was successful in part because “before we went to the City, we went to the Institute,” Singh said.

“Our goals were things that the Institute wanted, too,” he said, and having MIT’s support helped the GSC to convince city officials.

Clippinger said that MIT is an important constituent of Cambridge and that the city tries to make sure those affected by any construction are involved with the process.

Singh also said an important source of the GSC’s legitimacy in advocating changes was the fact that MIT graduate students comprise 6,000 residents of Cambridge, and many of them vote in local elections.

He said the GSC sent a letter explaining its proposals to officials at Cambridge, MIT, the state highway department and the governor’s office.

The changes have “set a precedent,” Singh said. “It has shown students ... that they are able to be heard in some sense, and that the city doesn’t have to be seen as this unmoving thing.”

Faculty Promoted

On May 16, the Executive Committee of the MIT Corporation approved the promotions of various faculty members. All promotions will take effect on July 1, 2005, unless otherwise noted.

The following faculty members were awarded tenure. All are associate professors, unless otherwise noted:

Eran Ben-Joseph	Urban Studies and Planning
David L. Darmofal PhD '94	Aeronautics and Astronautics
Scott R. Manalis	Biological Engineering
Bevin P. Engelward	Biological Engineering
Bernhardt L. Trout '90	Chemical Engineering
Charles F. Harvey	Civil and Environmental Engineering
Martin F. Polz	Civil and Environmental Engineering
Krste Asanovic	Electrical Engineering and Computer Science
Isaac L. Chuang '90	Electrical Engineering and Computer Science
Muriel Medard '89	Electrical Engineering and Computer Science
David Autor	Economics
Victor Chernozhukov	Economics
(promoted from assistant professor)	
Emma J. Teng	Foreign Languages and Literatures
Chappell Lawson	Political Science
Georgia Perakis	Sloan School of Management
Antoinette Schoar	Sloan School of Management
Andreas S. Schulz	Sloan School of Management
Jesper B. Sorensen	Sloan School of Management
Ezra W. Zuckerman Sivan	Sloan School of Management
Michael B. Yaffe	Biology
Jianshu Cao	Chemistry
Catherine L. Drennan	Chemistry
Andrei Tokmakoff	Chemistry
Andras Vasy PhD '97	Mathematics
Max Tegmark	Physics

The following faculty members were promoted from associate professor with tenure to full professor:

Mark Jarzombek PhD '86	Architecture
Terry W. Knight (effective Sept. 1, 2004)	Architecture
Rosalind Wright Picard ScD '91	Media Arts and Sciences
David Ben Schauer	Biological Engineering
Bruce Tidor	Biological Engineering and Electrical Engineering and Computer Science
Paul I. Barton	Chemical Engineering
Heidi M. Nepf	Civil and Environmental Engineering
William T. Freeman	Electrical Engineering and Computer Science
Daniel N. Jackson	Electrical Engineering and Computer Science
Franz X. Kaertner	Electrical Engineering and Computer Science
Steven B. Leeb	Electrical Engineering and Computer Science
Angela M. Belcher	Materials Science and Engineering and Biological Engineering
George Haller	Mechanical Engineering
Douglas P. Hart	Mechanical Engineering
Peter T. C. So	Mechanical Engineering and Biological Engineering
Ronald G. Ballinger	Nuclear Engineering
James Buzard	Literature
David Mindell	Science, Technology and Society
Dan Ariely	Sloan School of Management
Edward Gibson	Brain and Cognitive Sciences
Pavel I. Etingof	Mathematics
Krishna Rajagopal	Physics

The following faculty members were promoted from assistant professor to associate professor without tenure:

John E. Fernandez '85	Architecture
Wendy Jacob	Architecture
Heghnar Watenpaugh	Architecture
J. Meejin Yoon	Architecture
Cynthia Breazeal PhD '00	Media Arts and Sciences
Balakrishnan Rajagopal	Urban Studies and Planning
Zoltan S. Spakovszky PhD '01	Aeronautics and Astronautics
Karen E. Willcox PhD '00	Aeronautics and Astronautics
Michael J. Collins	Electrical Engineering and Computer Science
Erik D. Demaine	Electrical Engineering and Computer Science
Michael D. Ernst '89	Electrical Engineering and Computer Science
Pablo A. Parrilo	Electrical Engineering and Computer Science
Leonid A. Mirny	Health Sciences and Technology
Yoel Fink PhD '00	Materials Science and Engineering
Nicola Marzari	Materials Science and Engineering
Christopher A. Schuh	Materials Science and Engineering
George Barbastathis	Mechanical Engineering
Samir Nayfeh PhD '98	Mechanical Engineering
Xavier Gabaix	Economics
Noel B. Jackson	Literature
Patricia Tang	Music and Theater Arts
Peter D. Wysocki	Sloan School of Management
Julian P. Sachs	Earth, Atmospheric and Planetary Sciences
Igor Pak	Mathematics

SOURCE: MIT NEWS OFFICE

Teaching Constitution Mandatory, But Law Unlikely to Be Enforced

Constitution, from Page 1

lead to other, worse things being required,” he said. A law mandating the teaching of a document that grants personal freedoms and limits federal power seems “ironic,” he added.

Spending bill led to requirement

“Each educational institution that receives Federal funds for a fiscal year shall hold an educational program on the United States Constitution on September 17 of such

year for the students served by the educational institution,” according to the bill, which was signed into law by George W. Bush last year.

The provision was supported by Senator Robert C. Byrd from West Virginia, who “has strong feelings about the importance of the Constitution,” Redwine said.

The requirements for satisfying the law are broad. “School districts and universities and colleges are to determine their own format and content,” said Alex Stein of the Department of Education. “We just

put out the announcement and encourage universities to do as they see fit.”

“If the school cannot do it on September 17, the week before or the week after is fine too,” and the Department of Education is not actively enforcing the requirement, Stein said.

The requirement of a “Constitution Day and Citizenship Day” was announced in the May 24 issue of the *Federal Register*, helping lead to awareness of the event by the general public.



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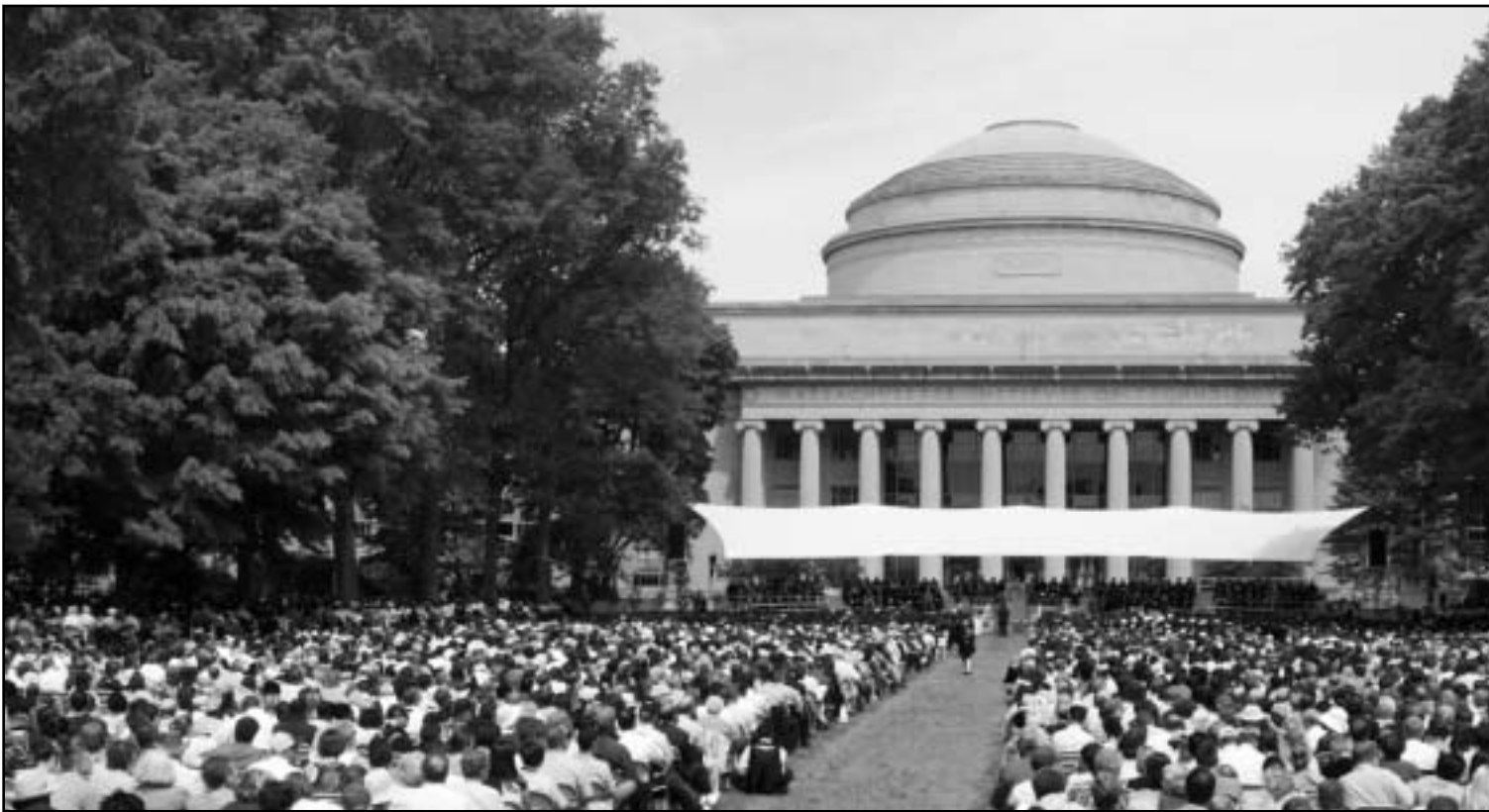
Jacobs Gives Commencement Address

Irwin Jacobs, CEO of Qualcomm, was the speaker for 2005 Commencement. Jacobs is an alumnus of MIT, having received an SM in 1957 and a PhD in 1959.

Thank you very much. It's a great honor to be here with you on this very special occasion, and I would like to give special thanks to President Susan Hockfield for asking me to provide this address. I'd also like to congratulate the Class of 2005 on this very special day, and provide welcome to the family and friends of the graduates, to the faculty here, to the entire MIT family. It really indeed is a very special time.

It's a very great day to graduate. I remember back to receiving my graduate degrees here, a master's and a doctorate, back in '57 and '59, quite a few years ago, fitting very well in with the 50-year reunion class. I must say that, at that time, I could not possibly have imagined all the things that were going to happen in my life over the succeeding years. That indeed is something I'd like to pick as the theme today, namely that we're all going to, and in particular, you are going to be going through a great deal of change providing both opportunities and occasionally some problems. But, in fact, an MIT education is about the best possible way to prepare yourselves for this very exciting future. I suspect again that a few years from now, when you have the opportunity to think back, there will be many things that you just could not have anticipated, and so it's important to be prepared for those changes.

My life itself has seen a number of changes. I'll use those for an example. I actually was born in New Bedford, Massachusetts, not too far from here. When I graduated high school, I had always been interested in math and chemistry, physics. My high school counselor advised me, and this was 1950, that there was no future in science, nor in engineering. And since I didn't really have a measure to evaluate that, I then took his advice. My family had a small restaurant, and so I entered the school of hotel administration at Cornell University. Well, I had an engineer as a roommate, and after a year and a half of hearing him talk about how tough it was to get those grades if you were in engineering, and knowing that I really preferred engineering, again, I made a very significant change in life and decided to transfer over to electrical engineering. And that was a very exciting period. I was a co-op student. That turned out to be very useful. One of the engineers I worked with then advised me to go on to graduate school, and that's how I ended up at MIT. But thinking back,



KEITH WINSTEIN—THE TECH

Family members gather in Killian Court for Commencement last Friday, June 3.

in my last term at Cornell, and this is how fast things have changed, I took a course in the theory and practice building of vacuum tubes, built a 6FN7 and a 686, you've probably never even heard of these terms any longer.

I was reminded last week, when I gave a talk at the Computer Museum in Mountain View — and that, in fact, has a lot of equipment that originally came from the computer museum here in Boston but now is out in Mountain View, California — and so as I toured around, looking at all the equipment, seeing analog and digital, differential analyzers, up to cell phones (which are of course are the latest and most powerful computers, but I'll come back to that) that it was amazing to me how fast things have changed and, again, that's the key issue with change. It is amazing to see all these familiar items that had been in my life and then passed out of it so quickly. Well, I did decide to apply and luckily was accepted here at MIT to graduate school, and originally came thinking that EM theory, electromagnetic theory, would be an interesting area, but at MIT at that time, Professor Claude Shannon had just come, the father of information theory. There was a lot of interest in the theory, the mathematics, probability theory, etc. And so I decided that would be my future. And I'm very pleased with that decision.

One of the early courses I took was from Professor Norbert Wiener. I don't think probably anyone here



KEITH WINSTEIN—THE TECH

Christine R. Fry '05 receives her hard-earned diploma from Institute President Susan Hockfield at Commencement.

might have had the opportunity, but it was very interesting. There were many tales, I'm sure, still running around MIT about Professor Wiener. One that I most remember, in taking this class, probably like several of the classes you might have taken, the lectures were, well, I probably shouldn't say this, it's not the case any more, but the lectures were incomprehensible. And so, each night, a group of graduate stu-

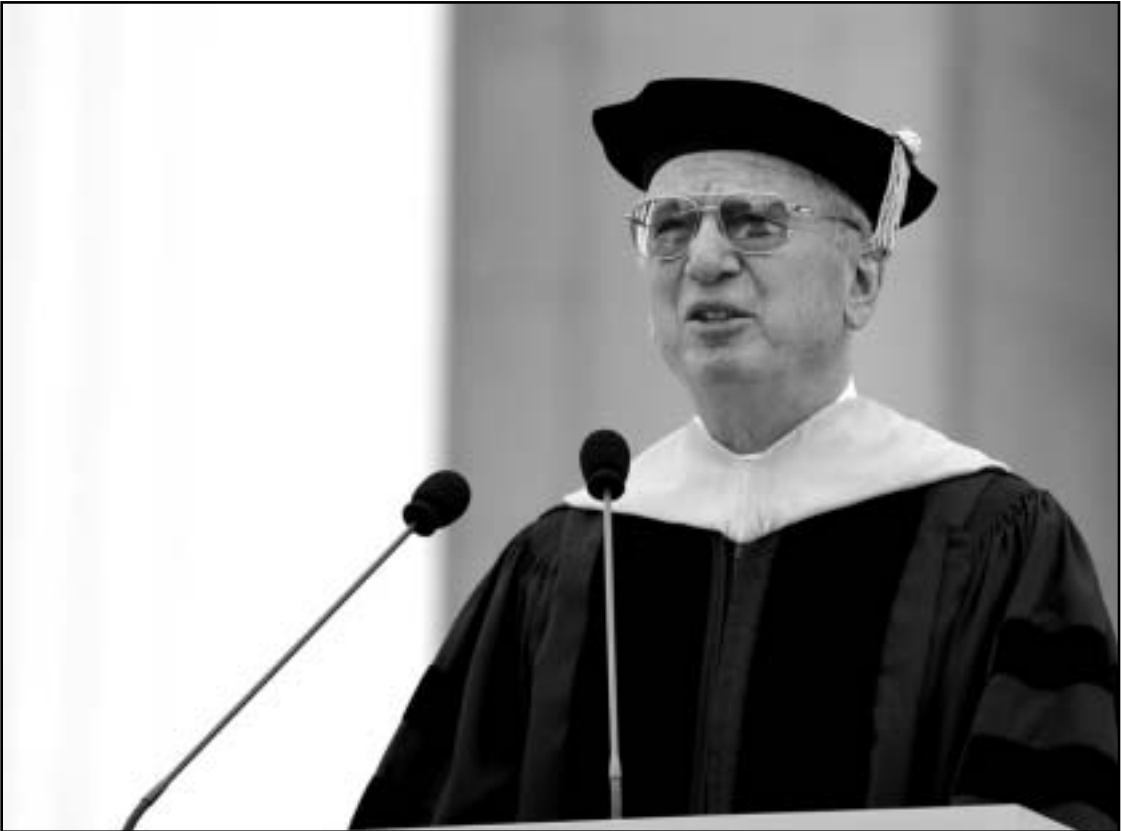
dents would get together and try to figure out what it was we had heard during the day, and try to put it together in a way that we could understand. About halfway through the term, Professor Wiener heard that we were doing this, came to the room, and said, "Can I look at the material?" Became interested, said we should make a book from this. And so we then continued to put the material together as a book. He would come in, every day after class, and his only question was, "How many pages are we up to?" So he always had a different slant on things. That book did come out. It's "Nonlinear Problems and Random Theory," the first book that I was ever involved with. Went on the faculty here, again, it's a wonderful way, if some of you are considering careers in teaching, I'd greatly recommend it. It's the best way to learn material.

And while here, I decided with Professor Jack Wozencraft to put together a book, a textbook for a senior-level communications course on applying what was then brand-new digital theory and information theory. I tried to give it a little bit more of a practical face, and there were many at the time who said there really is no practical use for this, you should just treat it as applied mathematics. In fact, of course, that's turned out not to be the case at all.

I did take a leave of absence to make my one visit to California, about the time we were finishing the book in '64-'65. We decided that might be a good place to retire sometime, came back to Boston, had a call from a professor from

Cornell saying that he's going out to start a brand-new department of electrical engineering at a brand-new university in San Diego. Would we join him? First reaction, of course, was no. Family, friends, career here. But after a couple of days we decided that California and a brand-new university and an opportunity for a different experience might be quite exciting in our lives, and we accepted. Again, change, the change from here to a brand-new school, it was interesting. And the brand-new school was very small, of course, very few faculty. One of the classes I started had to do with introduction to computer science. There were some engineering students, but there were students and faculty from music and from the arts departments, and kind of in interacting with them developing an even greater love for the arts and music that we've been able to follow them ever since. So it was very interesting being in a brand-new university.

But that also led to another major change in my life. Because of the MIT background, a lot of industry in southern California, there were many requests for consulting. Typically, if you're on the faculty, you might consult a day a week, and so I mentioned that to a couple of friends on the faculty of UCLA (we were flying back on a trip) and they said, let's start a company and share consulting. And I said, fine, as long as I don't have to get involved with managing it, and so we started a first company called Linkabit. And, very quickly, it began to grow. And so I



BRIAN HEMOND—THE TECH

Irwin M. Jacobs ScD '59, the CEO of Qualcomm, gives the keynote speech at MIT's Commencement last Friday, June 3, in Killian Court.

Class of 2005 Celebrates Graduation



Dana G. Mead PhD '67, chairman of the MIT Corporation, leads graduates and their guests in singing the MIT song during Commencement last Friday, June 3, in Killian Court.



Jennifer Hu '05 sports the acronym IHTFP above her academic regalia.



Barun Singh G, president of the Graduate Student Council, gives an address during Commencement.



Graduating students listen to the keynote address from Qualcomm CEO Irwin M. Jacobs ScD '59 at Commencement.

Hockfield Speaks to Class of '05

President Susan Hockfield spoke to the Class of 2005 at Commencement in her first address to a graduating MIT class.

Graduates of MIT: This is your day. We have gathered here today in Killian Court to celebrate your accomplishments — the successful completion of demanding courses of study, often lasting several years. You have our deepest respect for all that you have accomplished. But today is not yours alone. None of you would be here this morning were it not for the families and friends who have nurtured and supported you since childhood — who have embraced your dreams and lighted your path. This is their day, too. Graduates, I ask you please to rise and thank those families and friends.

A month ago, I stood here in Killian Court and spoke about what defines MIT — and about my dreams and hopes for this great institution. Those inaugural remarks were addressed to the whole Institute community. This morning, I would like to speak to those of you who are graduating today — about my hopes and dreams for you.

You, our graduates, are exceptional individuals. You arrived at MIT with remarkable native talents, already honed by years of demanding study. Here, you have learned from a brilliant faculty, and — just as important — from each other. You have learned about complex subject matter and you have learned about yourselves. Now, as you leave MIT, I challenge you to put what you have learned here to work, for the good of this nation and the world. Because we have never needed your talents and skills more than we do now.

We live in an uncertain, unsettled age. And we face great challenges — to name only a few — in energy, in climate change, in contagious diseases, in the design of our urban communities and in global poverty.

You — the graduates of MIT — are uniquely equipped to address issues like these. You are ready to make the necessary advances in science and technology, to employ rigorous quantitative and qualitative analysis, and to develop new methods of interdisciplinary inquiry and problem-solving. So, at times in the years ahead when a choice of direction presents itself, I hope you will ask yourselves, “Where can I do the most good? How can I make a difference in the world?”

Now, you will not be able to do this work alone. Meeting the great challenges of our era will require teamwork and collaboration. You will need to draw not only on what you have learned in the classroom and lab, but also on what you have learned about the importance of community.

As the currents of your lives draw you away from MIT's shores, you will in important and real ways remain part of this community. At the close of this morning's ceremony, Linda Sharpe, the president of the Alumni Association, will formally welcome you into the association's membership. We hope you will stay connected and engaged with the life of the Institute.

But beyond your own connection to MIT, I hope that you will also

transmit the values that define this community to the other communities you will now join; that you will see leadership as an opportunity to serve the common good; that you will make integrity the touchstone of your judgments; that you will exemplify the pursuit of truth and an unwavering drive toward excellence; and that you will continue to demonstrate the value of plain old-fashioned hard work.

Finally, and perhaps most crucially: I ask you to inspire your own generation and those to come with a renewed sense of possibility and optimism for the future. Here at MIT, we see up close the myriad ways in which science and technology promise to benefit humankind. If we are to realize that promise, we need to kindle in others the same love and passion for truth and discovery, for creativity and problem-solving, that brought us all here. I hope that each of you will embrace this challenge as your own.

I would not set you this charge if I did not think you could meet it. I have tremendous faith in you. The intelligence, diligence and creativity you have demonstrated here at MIT have inspired us all. And I know that in the years to come you will do even more — and surprise and delight us with achievements we could never have predicted.

For now, in closing, let me say simply, “Congratulations, graduates of MIT!”

SOURCE: MIT NEWS OFFICE



Institute President Susan Hockfield and Chairman of the MIT Corporation Dana G. Mead PhD '67 exchange a few words during the academic procession preceding Commencement.

Japan Initiates Own Six-University OCW, Learning From MIT

By Christina Kang
STAFF REPORTER

In an initiative inspired by MIT's OpenCourseWare, six Japanese universities have launched a Web site providing a range of free course materials. The Web site is readable in both Japanese and English.

The Japanese OCW Alliance consists of Kyoto University, Keio University, Osaka University, Tokyo Institute of Technology, University of Tokyo, and Waseda University. It is designed to reach areas such as Southeast Asia where MIT does not have a big presence, wrote MIT Professor Shigeru Miyagawa by e-mail.

The expansion of OCW into other countries is a step toward fulfilling MIT's goal of making universities' knowledge more widely available. MIT encourages other universities to launch initiatives similar to OCW, said MIT OCW Senior Strategist Stephen E. Carson.

Japanese OCW mimics MIT's

The number of courses offered by each university in the Alliance varies. MIT typically asks that a participant start with at least 10 courses, but the Tokyo Institute of Technology went significantly beyond, offering 53 courses at the launch of the program.

Japan took a particularly strong interest in MIT's OCW project from its beginning and invited Miyagawa to give lectures and meet with the presidents of the six universities now comprising the Alliance.

"MIT OCW fully supported their effort, offering know-how, right down to the details of the homepage design," Miyagawa wrote in an e-mail.

The Japanese universities based their site on MIT's "How-to" site for OCW, available at <http://ocw.mit.edu/OcwWeb/HowTo>, Carson said.

"It was up to the Japanese institutions to choose to follow as much, or as little, of the MIT format as they wished," Miyagawa wrote. Most of the Web sites used MIT's basic design and interface for each course, but each was unique in that its original top page that "reflected the personality of the institution," he wrote.

Japanese admire OCW effort

"Given that [the Alliance] had less than one year to go from nothing to the present state, I'm enormously impressed with the energy and commitment of these institutions," Miyagawa wrote.

"It is gratifying to hear from the presidents of the top Japanese universities how they admire the position that MIT took," and are using their leadership to further similar causes, he wrote.

The philosophy behind OCW is not widely accepted outside the U.S. "OCW is, by no means, the way that most governments think about education," and "could have an impact on national policy of these countries," Miyagawa wrote.

OCW spreads worldwide

The Alliance and Miyagawa are discussing the potential creation of a pan-Asian OCW effort by working with the Chinese OCW. Miyagawa was a member of the original team to propose the idea of OCW at MIT, and serves as the direct link between MIT and the Alliance.

Prior to the creation of Japan's OCW Alliance, several other universities had started OCW programs as well. The first known international site was started in Vietnam two years ago, soon after MIT launched the original program. Various universities and colleges in the U.S. also created pilot programs of OCW, publishing about 10 to 15 courses each on their sites, Carson said.

MIT's OCW grows rapidly

OCW, first developed by MIT, is an award-winning program which provides syllabi, readings, lecture notes, lecture videos, assignments, laboratories, exams, projects, and other course materials via the World Wide Web for free.

The faculty directly supplies the material, but receives no direct compensation or royalties. The material is freely accessible, but is only to be used for non-commercial purposes and must be cited properly for copyright reasons.

According to the MIT OpenCourseWare Quick Facts pamphlet, MIT offers 1,001 OCW courses, having come more than halfway toward its goal of having 1,800 courses available online by year 2007. The Web site averaged 12,398 visits daily between October 1, 2003 to April 30, 2005, and has had 511,004 hits since April 2005 from Japan alone, the 8th highest hit count for countries outside of the United States.

MIT encourages the translation of their OCW site into other languages, giving official links to Web sites such as the Spanish <http://Universia.net>.

The Web site for each university in the Alliance can be accessed at <http://www.jocw.jp/>.

Bush Administration Leaves MIT Unable to Bring LBGs into ROTC

ROTC, from Page 1

very different," said Dean for Undergraduate Education Robert P. Redwine. There is "basically nobody to talk to" about the possibility of changing the policy. "We're happy to [take action], but no one [in the Department of Defense] will even talk to us about it," he said.

The MIT faculty first voted in 1990 for the administration to work toward eliminating the ROTC policy, which directly conflicts with MIT's nondiscrimination policy. A 1996 MIT Task Force charged with evaluating progress recommended that MIT work toward creating a modified ROTC program that accepts homosexual students, advocate for national policy change, and reinsure ROTC scholarships to students who lose them because their homosexuality is revealed.

In the nine years since the faculty approved the 1996 recommendations, the efforts to create a modified program have proven unsuccessful, national policy has not budged, and no students have been dismissed from ROTC because of sexual orientation.

"The faculty resolution about this issue was based on the hope that MIT and other, like-minded universities might influence national policy," wrote Professor Steven R. Lerman '72, who was the chair of the faculty from 1999-2001, in an e-mail. "The reality is that despite our sincere efforts, we have made no significant progress in influencing national policy in this area; even worse, there appears to be no reasonable prospect of our doing so even working in concert with other academic institutions that have similar concerns. This has left us in the difficult position of having ROTC on campus as a singular exception to our non-discrimination policy," he wrote.

U.S. is unreceptive to changes

MIT's nondiscrimination policy states that "MIT continues to advocate for a change in DOD policies and regulations concerning sexual orientation."

In practice, though, little has been done in the seven or so years

since MIT determined that creating a modified program was unrealistic. MIT's only active political work on this issue was participation in a failed lawsuit during the late 1990s. Though MIT has followed other political activities, it has not participated in any of them.

The problem is not a lack of conviction, but rather a lack of opportunity, said MIT administrators.

MIT's position clearly remains that homosexual students should be allowed to participate in ROTC, Redwine said.

"There was never a problem with the program here; the question was, 'Could we get anybody in Washington?'" said Chancellor Phillip L. Clay PhD '75.

Professor Lorna J. Gibson, the incoming chair of the faculty, agreed, saying there "doesn't seem like there's an awful lot of places MIT can push" for policy change.

Given the political climate, the prospects of a successful lawsuit or movement seem limited, Clay said. "In a matter like this, you don't want to find yourself flailing about ... you look for something solid to initiate or to attach to, and if you don't find it, you probably best not make a big noise." Though a case with limited prospects could be made on principle, "universities don't typically do that," Clay said.

Asked about the possibility of fruitful future advocacy, Clay said "I'd like to think the answer is yes, but ... I can't imagine what it'd be at this point."

Abandoning ROTC not an option

The 1990 faculty resolution stated that if there was inadequate progress in the ensuing five years, ROTC should be removed from campus. However, despite lack of progress, the removal of ROTC is no longer under consideration.

The 1996 Solomon Amendment, passed shortly after the faculty resolution, allows the Secretary of Defense to deny federal funding to universities if they interfere with the ROTC program, Clay said, so MIT is financially bound to the program. Though he did not know of any instances in which funding was actually lost as a result

of changes to the ROTC program, "there have been a couple of threats," Clay said.

Beyond the funding issues, there is a sense that MIT should educate military officers. There has long been a "strong consensus" among faculty and the MIT community that MIT should "continue playing a role in educating officers," Redwine said. Many at MIT believe that "if we're going to have a military, we should have smart people in it," Clay said.

"I think it is in our national interest to have military officers who are educated at universities other than the military academies," Lerman wrote. "ROTC also offers economic opportunities to many students who might not otherwise be able to afford a college education."

"While eliminating ROTC at this time is probably neither appropriate nor practical," Lerman wrote, "we might find ways to further distance our university from ROTC such as moving it off campus."

Clay, however, disagreed. "If we're going to have [ROTC] ... then MIT should embrace it, not marginalize it," Clay said.

Chancellor's reports similar

While the state of ROTC policy has not changed much, neither have the chancellor's annual reports. Some annual reports from Clay, mandated by the 1996 vote, have been strikingly similar. The sections vary in their repetition, ranging from about 50 to 100 percent identical in content. In the box accompanying this article, for example, there is an excerpt of the 2003 and 2005 reports for the sections "Climate for Gay and Lesbian Students." Of the 131 words in the 2003 excerpt, 119 appear identically in the 2005 excerpt.

"You aren't supposed to do that," said Redwine, though "the truth is not much has changed" in factual content.

"There are some changes within some of the them, but some of them are ... the wording is exactly the same ... that's what it is," Clay said.

Reports and meeting minutes are available online with MIT certificates at <https://web.mit.edu/dept/lib-data/libdepts/d/archives/facmin/>.

The 2003 and 2005 reports on ROTC Implementation, written by Chancellor Phillip L. Clay PhD '75, are word-for-word the same in many parts. The sections ranged from being about 50 to 100 percent identical. Below is the "Campus Climate for Gay and Lesbian Students" section of each report, with differences indicated in italics.

From the Report of the ROTC Implementation, presented at the May 21, 2003 faculty meeting:
Campus Climate for Gay and Lesbian Students

The faculty vote asked the committee to pursue initiatives that would improve the community climate for gays and lesbians. While much remains to be done, we believe *progress continues*. The specific initiatives and credit for progress in this area belong to staff of the Office of the Dean for Student Life, faculty, students, and *others* who are active in *their* support and advocacy of the GBLT community.

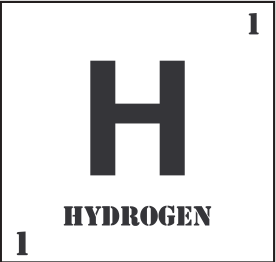
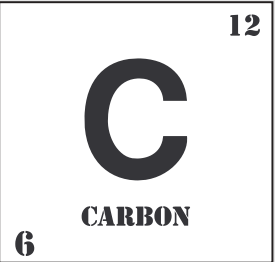
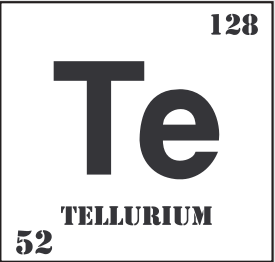
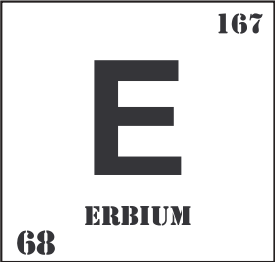
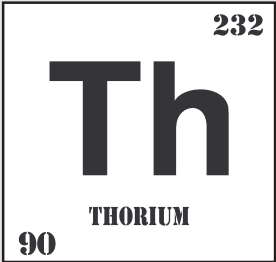
MIT has become a more welcoming environment. *Attendance* at campus-wide events to support the *LBJT* community *continues to increase*. There is more knowledge and appreciation for MIT's diversity and its firmness in the enforcement of policies against discrimination and harassment. Efforts to *improve our environment* continue in student orientation, residence life, campus events, and diversity training.

From Report of the ROTC Implementation, presented at the May 18, 2005 faculty meeting:
Climate for Gay and Lesbian Students

The faculty vote asked the committee to pursue initiatives that would improve the community climate for gays and lesbians. While much remains to be done, we believe *the environment is improving*. The specific initiatives and credit for progress in this area belong to staff of the Office of the Dean for Student Life, *Department of Human Resources*, faculty, students, and *staff* who are active in *the* support and advocacy of the GBLT community and inclusion. *This past year, the Institute added protection for "sexual expression" to our list of antidiscrimination protection.*

MIT has become a more welcoming environment. Campus-wide events to support the *GBLT* community *continue and are more visible and better attended by all segments of the community*. There is more knowledge and appreciation for MIT's diversity and its firmness in the enforcement of policies against discrimination and harassment. Efforts to *inform the community and express our values* continue in student orientation, residence life, campus events, and diversity training.

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Elements
of a
Good
Newspaper



Budget Returns to Normal After Cuts in Recent Years

By Beckett W. Sterner
NEWS EDITOR

MIT will have “a normal budget” this coming fiscal year after difficult cuts last year, said Provost Robert A. Brown.

“The hard work we did in 2004-2005 to rebase ourselves has born fruit,” said Executive Vice President John R. Curry.

The reductions MIT made “have stuck,” he said, as the staff’s energies have been more efficiently directed to needed areas. Curry said that while many departments have requested more staff, the requests are coming from different areas than the ones that were cut, indicating that the administration is working more efficiently.

As MIT’s endowment has started increasing again, and salaries will rise at their standard rate of 3 to 5 percent, Curry said. The total amount distributed from the endowment will increase by 6.0 percent, also within the normal range.

The greatest cost increase the Institute had to deal with this year involved utility prices, Curry said. “We got hammered by utilities,” a situation that “worries me again for next year,” he said.

MIT has added \$5 million to its “recurring costs,” Brown said, referring to the funds MIT distributes from its endowment in support of long term programs. The \$5 million is being used to fund the new bio-engineering major, bring the communication requirement up to its intended size, and hire more lecturers in foreign language, especially Chinese.

Construction slower but ongoing

There are two major renovation and construction projects starting in the next year, Brown said.

Once the Brain and Cognitive Science Building opens this fall, space in Buildings E25, E17 and E18 will open up as researchers shift location, allowing for a major renovation of E25.

Buildings 2, 4, 6, and 8 are also set to undergo a large renovation and construction effort. A new building in what is currently the “Atomic Courtyard” will add 49,000 new square feet, including two floors of AV and technical support space.

Expenditure on deferred maintenance has remained level, Brown said, referring to any costs for renovations or repairs of buildings MIT intends to keep long term.

Curry said that MIT would likely build another science building in the next few years. “There’s enough demand for it,” he said. The new Sloan School building, Media Lab extension, and music and theater arts building are all on the table but awaiting donors.

Curry said that with a slower pace of new buildings being planned, he also hoped to address basics around campus such as better sidewalks and more trees.

Same people but more research

Much of the construction boom at MIT over the past few years has been a result of the increasing needs brought in by new, younger faculty coming to MIT after the early retirement program of 1995, Brown said.

While it may seem to an observer walking around campus as if the Institute has grown in size, the total number of faculty has only recently returned to its pre-1995 level, he said. The younger faculty, however, conduct a greater volume of research and bring in more graduate students, requiring more office and

laboratory space. In contrast to the faculty size, the graduate student population has exploded over the past ten years, doubling in size.

The number of graduate students flattened out this year, however, in part a result of the increased cost to faculty for each student due to a lower tuition subsidy provided by the Institute. As MIT returns to its pre-1995 state, the growth in students is expected to slow or stop, Brown said.

“The faculty are more conservative” with their money these days, he said, partly because of greater uncertainty in federal funding.

The grants budgets for both the National Institute of Health and the National Science Foundation decreased slightly this year after doubling in the past decade.

In addition, both NASA and the Department of Defense have drastically revised their funding priorities in the past year, sometimes choosing to withdraw funding from traditionally supported fields.

Research funding has increased overall, however, Brown said. The increase is mainly due to new funding for the Broad Institute and Lincoln Laboratory. Otherwise, he said,

the rest of MIT’s funding has shown a slight decrease within the normal year-to-year fluctuations.

The Electrical Engineering and Computer Science Department in particular has had a trying year as the Defense Advanced Research Projects Agency has changed its research focus to more short-term projects, leading some laboratories to stop applying for funding.

The department, however, has been able to supplement the lost funding from DARPA with money from industry sources.

The Sloan School of Management was the only School within MIT to impose a hiring freeze last year, but has returned to normal hiring for next year.

“Sloan’s in a slightly different position,” said Richard Schmalensee, dean of the Sloan School. “I think our down was a little farther and our up may be a little quicker” as demand for executive education and alumni donations pick up.

Schmalensee said that Sloan had not seen many adverse effects from taking a year off from hiring. He said that 14 offers were made, 11 of which have been accepted.

SafeRide Changes Routes, Adds Stop At Pru

By Kathy Lin
CONTRIBUTING EDITOR

Come late August, some MIT shuttle routes and schedules will see recently-approved changes resulting from student input. “We want to go where needed and where the students want us to go,” said Larry Brutti, operations manager for the Parking and Transportation Office.

The Boston East and Boston West Saferide shuttles will be among those affected, with a stop switching from the Boston West route onto the Boston East route, Brutti said, to better balance the ridership of the two routes. A stop at the Prudential Center will also be added to the Boston East route, he said.

These changes were proposed by the Undergraduate Association and approved by the UA Senate, the Graduate Student Council, and the Interfraternity Council, he said.

The Tech Shuttle and Northwest Shuttle are also undergoing changes. The major change is the addition of a stop at the Stata Center in response to suggestions from a few graduate students living at Tang Hall with children in day care at the Stata Center, Brutti said. The stop was on the route before construction began for the Stata Center and Vassar Street.

Updated brochures should be ready by the beginning of August, and the schedule changes will take place before school begins in the fall, Brutti said.

Interest of Industry in New Energy Technology Will Help Drive Initiative

Energy, from Page 1

meeting on June 17, Moniz said. Committee members will begin by talking with about 100 MIT faculty members working on energy-related research in order to understand the field’s current state at the Institute, he said.

New solutions needed for energy

“The history of attempts to develop new energy technologies has been a spotty one,” said Richard Schmalensee, dean of the Sloan School. The MIT initiative would only be able to create an impact if it makes economic sense, he said.

That new drive for change from industry is a primary reason why the initiative might succeed now where others have failed. “Industry is absolutely critical as a participant in this endeavor,” Schmalensee said. It provides not only “financial support, of course, but also a sense of market reality.”

Major companies, including General Electric, are now pushing for policy changes in favor of alternative technologies to traditional fossil fuels, Moniz said. GE recently bought Texaco’s coal gasification technology, a prime possibility for burning coal more cleanly, and also photovoltaic solar energy technology from AstroPower.

There are two forces at work in MIT’s initiative, one in the long term and one in the near future, said Council member and Chemistry Professor Daniel G. Nocera.

“For the short term there’s going to be an ‘energy mix,’ and that we can do with technologies and improving technologies,” he said. However, “there’s going to be a huge energy need for the future ... My concern is the longer term one.”

“A lot of the science that will be needed for a true, sustainable energy source doesn’t exist,” and will take

several decades to move from basic research to workable product, he said. That timescale, he said, closely matches when the growth of energy demand from China and other developing countries will surpass supply.

Public awareness of the need for new sources of energy has existed since the oil crisis in the 1970s, but research has not made great strides since then.

“Over the last thirty years, these two words — energy and the environment — have gotten a little tired, not from overuse but from lack of progress,” Hockfield said in her speech.

“In addition to the oil shock problem and badly-named energy security [issue] there was also the environmental problem of pollution,” Moniz said. However, “those drivers ... did not go to the fundamental core of the energy industry.”

Since carbon, a primary constituent of fossil fuels, is itself a pollutant with regard to climate change, fundamentally new solutions are required. “Controlling carbon in fossil fuels versus controlling sulfur [a contaminant] in fossil fuels is a whole different problem,” Moniz said.

MIT is optimistic about initiative

Scientists are ready to make significant contributions to the problem. “The faculty are really ready,” Nocera said. Energy research has always been present at MIT, but “it hasn’t been in a team effort.”

Dean of Engineering Thomas L. Magnanti said that a difficulty in addressing energy problems in the past has been a lack of funding for large-scale research, a situation that has improved in the past few years.

Moniz said that one of the desired results of the energy initiative will be the gathering of information that clearly describes the

current problems and their possible solutions.

When MIT produced a similar study on nuclear power recently, he said, initially everyone responded hostilely, but they eventually calmed down and the report “broke a logjam” in negotiations over how to use nuclear energy. Of course, with progress in passing legislation comes progress in appropriating new funding for research.

Now that “the world has come to recognize that energy is a pressing issue for all of us,” Magnanti said, there is “more of a sense of MIT’s obligation ... to make a difference.”

The kind of interdisciplinary work needed is “one of our core strengths,” he said.

Part-Time Research Jobs

Help Create a Safer Campus Community

The Student-Alumni Committee on Institutional Security Policy, a group that conducts research into safety issues on the Harvard and MIT campuses, is looking for research associates who could contribute to one or more of our currently available projects:

- analyzing data on crime trends
- interviewing campus security guards
- developing innovative ways to improve campus safety
- working with legislators to enact the 2005 Campus Police Public Records Bill (drafted by current members)

Previous student associates of our group have received job offers from firms like Bain and Boston Consulting.

Location: On campus
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\$17/hour (web design)
Contact: James Herms at <herms@alum.mit.edu>
For more information: visit
<<http://www.stalcommopol.org/jobs.html>>

Solution to Crossword

from page 7

I	O	N	S		B	E	E	T		P	R	O	P	S
S	L	A	P		L	I	T	E		A	A	R	O	N
L	A	V	A		A	G	U	E		K	H	A	K	I
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		S	E	A	T	S		U	S	H	E	R	S	
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E	R	E	C	T		L	E	S	S		R	A	T	E

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Newly-Elected Members of the MIT Corporation

Name	Term	Previous Membership	MIT Degrees	Job
Notable MIT Activities				
Robert L. Blumberg	5 years	—	SB '64, SM '65	President, Spectragraphics Crop. and SMS Technologies Inc.
Corporation Development Committee, vice president of Alumni Association board of directors				
R. Erich Caulfield	5 years	—	SM '01	PhD candidate at MIT
Former Graduate Student Council president				
David D. Ho	5 years	2003-present	—	Founding scientific director and CEO, Aaron Diamond AIDS Research Center
Brian G.R. Hughes	Life	1978-83, 1993-98, 2000-present	SB '77	Chair, HBN Shoe
Corporation Development Committee Advisory Group; visiting committees for Courses 2, 16, and BE; president of the Alumni Association '99-'00				
Anita K. Jones	5 years	2004-present	—	Professor of engineering and applied sciences, University of Virginia at Charlottesville
Lincoln Laboratory advisory board, Draper Laboratory Corporation member, visiting committees for ESD and sponsored research				
Raymond C. Kurzweil	2 years	—	SB '70	Chair and CEO, Kurzweil Technologies, Inc.
James H. Simons	5 years	2002-present	SB '58	President, Renaissance Technologies Corp.
Visiting committees for Courses 9, 18				
Linda C. Sharpe	5 years	2000-present	SB '69	Senior associate, Cambridge Systematics Inc.
Visiting committees for dean for student life and Course 2, President of the Alumni Association 2004-2005				
John A. Thain	5 years	2000-present	SB '77	CEO, New York Stock Exchange
Dean's Advisory Council, Sloan School of Management; visiting committees for dean for student life, Courses 6 and 14				
Kenneth Wang	5 years	—	SB '71	President, U.S. Summit Co.
Corporation Development Committee, vice president of the Alumni Association board, visiting committee for Course 14				

The MIT Corporation elected the above members at its quarterly meeting held June 3. The terms of the newly-elected begin July 1, which will bring the total number of members to 73 (of which 23 are life members and eight are members ex officio) with an additional 30 members emereti (who do not having voting privileges).

SOURCE: MIT NEWS OFFICE

Jacobs: Engineering Background Flexible, Versatile

Jacobs, from Page 10

did then decide to take a year off and check out business, try to get things properly organized. Didn't know really a thing about it. Luckily, in the hotel school, I had had a course in accounting, a course in business law, so a little bit of background. It turned out to be very useful, but I really had to learn the business side of things. Engineering is by far the best preparation for just about any field, so that has indeed worked out very well.

So Linkabit, this first company, did grow very nicely. We got involved in a number of interesting programs. One, scrambling TV signals from satellite to home, that's turned into a very major business. Another, what I call a very small one, Aperture Earth Terminals, where if you put a credit card in at a gas station, often it will go over one of these satellite terminals.

We've been into the cellular phone business since early on. And, actually, a processor, we didn't know the name at the time, I don't think it was really out, but a reduced instruction set processor, RIS processor, that we built into a terminal for use in government programs, and, in particular, for a program here at Lincoln Laboratory, to communicate with what was then called the Less 89 satellite. So, again, things tied back together very nicely. Very exciting to be able to come up with ideas, be able to apply theory to things that were rather practical, rather useful.

Well, we made the mistake, in a sense, of selling that company, and in 1985 I retired. Retirement was a terrible thing, so I lasted about three months, and then started Qualcomm. And I more or less assured my wife that if things went very well we might have 100 employees at some time. But then, we're now over 8,000 employees. And by the way, in my welcoming, I also meant to welcome any Qualcomm shareholders who might be here today.

Well, we didn't have any products. Luckily, we didn't have to go out for venture capital, so we didn't have to have a business plan. But we knew digital, we knew wireless would be very exciting, and it turned out that it was on a drive down from a consulting contract meeting in Los Angeles, a drive down to San Diego, about halfway, luckily, it's 110 miles or so, about

halfway down, realized that something called co-division multiple acts would be very useful for mobile communications. Well, the company was very small. We had to wait a few years before we could go ahead and develop that idea, but the time came when we sold our first product, had a little bit of a cash flow, and were able to then go back and pay attention to that, actually at the end of 1988. Began to take a look at it. Well, if any of you decide to go into your own businesses, and some of you, I'm sure, will be doing that, you run across a time when you have to make a company decision. And so, CDMA was one of those. Should you put a lot of money into R&D in a technology that may or may not be accepted? Is the world going off in a different direction? And, luckily at that time, I had not heard one of the projections that had been made to AT&T by a consultant two years earlier, or a few years earlier, that if all went well, there would be a million cell phones in use by the year 2000. Actually, they missed by a little bit. It was 600 million. And that, of course, gave a great opportunity for moving ahead with CDMA. We did develop the technology, demonstrate it, because otherwise everything sounds too complicated. You have to have demonstrations, so that was again one of the bet-your-company-type issues. And then the question comes up, if you now have a good product, how do you build a business model? What do you do about that? And so again this is the type of concern that you may be having going forward. We decided to go into a mode which was both licensing and of selling, initially, phones and infrastructure to get things started, but ultimately the chips. And that works out very well. As you know, chips keep getting more and more powerful. You can put more and more capability in them. If you come up with innovative ideas, you can build those into the chips. And so that's exactly the path that we followed.

It's interesting that, today, there are probably about one and a half billion users of cell phones around the world. In 2005, there were over 600 million sold, in the one year, or will be by the end of the year. Comparing that to about 150 million desktop and laptop computers, it's quite clear that the future is not in plastics, but really, now, in mobile devices. And the interesting aspect

is that the capabilities keep going up. One of the things that is now being provided is called third generation; again, I won't go into details, but if some of you have been using not just the wireless that's available on campus, that's called 80211, but a wide area coverage provided right now by Verizon here, one can get a very high data rate anywhere that you can receive a cell phone call, and so that is a key step.

But the interesting part is the devices, and because of Moore's law, the number of transistors on a chip, doubling roughly every two years or so, power going down, cost going down, all the right things happening, there's been a major transformation. When we first built our first cell phone, it took three chips to implement the communications only. Now it takes about 20 percent of one chip. What do you do with the other 80 percent? You can put a lot of computing power. In fact, now we're going to two processes, one of which is moving toward a gigahertz-type processing speed. Two processes, a couple of single processing units, a 3-D graphics capability, GPS receiving. You can put a lot on that chip, make it available as a low cost, high reliability, and therefore very useful to people. Therefore, since it's a computer now — not really a phone, you may not realize it when you're carrying it around — a very powerful computer, it opens up many possibilities.

And so we've developed another approach we call GRU (in fact, there's a conference now with about 2,400 people at it, occurring in San Diego), where developers anywhere in the world can develop an application to be downloaded to the phone. We arrange to provide a digital signature, a tested digital signature, so it won't corrupt the phone, and therefore, they can develop these, bring them, via some Internet meeting grounds we've established with the operators, bring their applications to the attention of operators around the world, and bill the business. And I think at this last meeting that's ongoing, it was mentioned that there was about \$350 million that had been funneled from operators to Qualcomm and then Qualcomm back to the developers around the world, and these last six months on the order of 150 million. So it's providing a very interesting base for people to start new companies, be able to market relatively

inexpensively, have a very large market, and, very quickly, get back an income. My own feeling is that over time, we're all going to have to carry around one device, never want to get too far away from your phone, but that device, in fact, is going to be doing many things. We're all used to the fact that now cameras become megapixel cameras, because you can put more capability on the chips. They're becoming video cameras, actually will be approaching DVD-type quality very quickly.

The more exciting aspect is other things, I think, that we're going to be able to do with that. We've all heard of issues with the digital divide, access to communications, to the Internet being more limited in certain regions. I think that the phone is a low-cost device with a huge amount of computing power and connection to the Internet, an ability to download software, process it, a large amount of memory by the way. With the appropriate amount of thinking and planning, it can be used to supplement teaching in many remote areas, as well as, of course, developed areas, around the world. So I think that there's a great possibility there to move ahead with these devices. People are still just realizing what the power in the devices might be, and, again, hopefully some of you out there will find this challenging. Of course, there are also medical devices that are now being attached to the cell phone, measuring blood capabilities and moving toward e-government. We're finding support, voting, information, etc., by use of the cell phone. So again, a device that we think of as a phone is a very powerful computer opening lots of opportunities.

Well, I mentioned e-government. One of the things I would like to recommend to all of you, or at least some of you, is to consider a career in politics. Again, I think an MIT education prepares you for just about anything. And it's interesting. I was over, a couple of years ago, with the previous president of China. We had a meeting. They always have this very formal U, myself and the president were sitting at the head of the U, and then staff on either side. And there's a little bit of chitchat that occurs before the formal meeting. What do you think the first question that was raised by the president of China, sit-

ting next to me? How many more generations did I think Moore's Law had to run. The president of China! Discussing it with him a little further, it turned out he actually was trained as an engineer, as a radio engineer, as was the prime minister of the time. That's the kind of interest and ability to, again, think about technology, bring it to use, that I think is also very important here in this country, and, of course, there's very little of that available here.

Another aspect, when I came to be a student here, I was lucky to benefit from the research laboratory of electronics, but it was very well funded at the time. Now the funding has been cut back quite a bit. There really are reasons to get out and become very politically active.

Well, there have been many rewards from having this type of an education, being able to go out. The world is changing; one can take advantage of those changes and do very well. It's important, of course, to have an impact back and the opportunity for philanthropy, of course, never goes away. We have been very lucky; our focus often is on education, but also cultural activities, other activities around the world, and I think that as you begin to move ahead in your careers that you should definitely pay attention to.

So, I'd like to finish by again congratulating you. You are embarking on a great adventure. You're probably entering a period where there's even greater change, greater things happening around the world than was correct when I graduated here. You might have seen a statement back from 1899 where the head of the patent office said that everything can be invented had been invented, clearly another shortsighted statement. But if you check with the patent office now, you'll find that many of the applications, many of the patents in the U.S. patent office are coming from overseas. And so, again, the competition is heightened, we have to move ahead, we have to improve our education throughout. We have to remain very innovative. You can certainly be guaranteed that there will be those changes. You have been well prepared. I wish you as much fun and excitement as I have had along the way.

SOURCE: MIT NEWS OFFICE

The Production Department's Word of the Day
omphaloskepsis: contemplation of one's navel as an aid to meditation

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MIT Faculty Praise Provost Brown, List Traits for Successor

Brown, from Page 1

neering. Brown has been “a great friend and advocate of the students,” especially in finding a way to fully subsidize individual health care for graduate students in a tough budget climate last year, Magnanti said.

Although MIT’s endowment has approximately doubled in the last decade, last year was a difficult one after tough market conditions led to a decline in the endowment for three consecutive years. To balance MIT’s books, former President Charles M. Vest and Brown chose to freeze salaries and lay off or leave empty about 250 staff positions.

As the Institute finishes the budget for next year, however, things have largely returned to normal, said Vice President John R. Curry.

Brown “may have taken some criticism” during the financial troubles, but “did a good job in hard circumstances,” Abeyaratne said.

“I’m really sorry to see him go,” said Professor John Belcher. “I think he’s the best provost MIT has had in 35 years.”

Brown, who has already begun transitioning to his new job, was unavailable for comment this week.

BU seeks stability after problems

BU has been trying to hire a new president for several years now, and backed out in late 2003 on their original choice of former NASA Chief Daniel S. Goldin. The Board of Trustees ultimately paid Goldin 1.8 million dollars to walk away from the job the day before he was supposed to take office.

Since then, the Board engaged in a year-long search for a new president, considering over 200 hundred different candidates, according to a BU press release.

Brown “was the search committee’s first, only, and unanimous choice,” said David F. D’Alessandro, vice chairman of BU’s Board

of Trustees and chair of the search committee, in a statement. “We looked at a number of people and concluded that Mr. Brown was a superior candidate ... He, in turn, very much wanted BU. Although he has been heavily recruited by other institutions, this is where he wants to be.”

The BU student newspaper, *The Daily Free Press*, has heralded Brown’s appointment in an analysis as a “coup for the university’s flourishing science programs.”

“If Brown steers BU’s emphasis toward science, the university can attract more prominent researchers into the classroom, profit from patents from breakthroughs made in its laboratories and allow the university to compete with its two rivals across the river,” the *Press* wrote.

Provost should balance Hockfield

Now that Hockfield is busy conducting a search for MIT’s next provost, she must decide what qualities are most important in a candidate.

“I think the person really has to complement the President ... given that she’s from the outside,” Abeyaratne said.

The past two provosts, including Brown, have come from the School of Engineering, and having the next provost come from an engineering background could balance Hockfield’s background as a life scientist.

Schmalensee said that “the ability to handle complexity and stay calm ... is crucial on this job,” and that personality matters greatly in picking the candidate.

The likely candidates include Magnanti, as current dean of engineering and Dick K.P. Yue ’74, the current associate dean.

Belcher said Associate Provost Claude R. Canizares was a good choice.

Alice P. Gast, as vice president for research and associate provost, is also a possibility.



CHRISTINA KANG—THE TECH

Imani Donyea Ivery, an administrative assistant for the Alumni Association, brings her work outside to the steps of Killian Court to enjoy a bright sunny day on Tuesday, June 7.

Love sports? Love to write? We want you!
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SPORTS

Triathlon Kicks Off Summer Competition Season

By Krzysztof Fidkowski
TEAM MEMBER

Despite non-ideal race conditions and some mechanical problems, several MIT triathlon club members had a strong first race of the season at the Mooseman Triathlon Festival last weekend in New Hampshire.

On Saturday, June 4, Anthony J. Schrauth G, Geoffrey T. Huntington G, and Katharine W. Ruhl G competed in the quarter-iron triathlon, which consisted of a 0.6 mile swim, a 28 mile bike, and a 6.5 mile run.

Schrauth started off well, in 42nd place out of the water, and then maintained a consistent pace for the bike and run, ending up in 84th place overall out of 441 participants.

Huntington, who experienced a bike

crash a few days before the triathlon, and who realized only a day before that he did not have his wetsuit with him, still competed. Donning borrowed mismatched top and bottom wetsuit pieces, he survived the 60°F water in spite of a dizzy spell halfway through. In 57th place out of the water, Huntington had a minor mechanical problem on the bike, but finished with a strong run to a 93rd overall place.

Finally, Ruhl started out with a conservative swim that put her in 263rd place at the start of the bike, but then had a stellar bike and run, ending up 169th overall, and 5th out of 30 in her age group.

The next day, Krzysztof J. Fidkowski G, Peter M. Mayer G, Christina W. Fidkowski G, and Jennifer Dobson faced mid 80°F heat in the half-iron distance, which consisted of

a 1.2 mile swim, a 56 mile bike, and a 13.1 mile run. Out of 396 entrants, 372 finished the race.

K. Fidkowski was 22nd out of the water, but the hilly bike course took its toll, and by the run he was battling dehydration, finishing 21st overall and 2nd out of 11 in his age group.

Expecting much colder water, Mayer was pleasantly surprised by the relatively “warm” water, and had a fast swim that put him in 84th place at the start of the bike. On pace for an impressive bike time, he found trouble with 15 miles left when he flatted his rear tube, twice. Not having the necessary tools to fix what turned out to be a serious wheel problem, Mayer managed to get some roadside assistance from a creative mechanic and rejoined the race, at a cost of about

half an hour. He finished with an even-paced run that put him in 157th place overall.

C. Fidkowski had a spectacular swim and was 17th overall and the first female out of the water. She then exceeded her expectations on the bike and achieved her running goal, ending up 190th overall and 8th out of 26 in her age group.

Dobson displayed remarkable consistency in all three events, placing 200th in the swim, 222nd in the bike, and 215th in the run, for a cumulative 218th place finish, putting her 10th out of 26 in her age group.

All in all, the Mooseman quarter and half-iron triathlons provided a great start to a summer of training and racing. The MIT triathlon club’s next team event will be the shorter Holliston sprint distance triathlon on July 10.

Women’s Water Polo Team Finishes Fifth at Nationals

By Lindsey Sheehan
TEAM MEMBER

The weekend of May 7–8, MIT Women’s Water Polo took fifth place at Collegiate Club Nationals held in College Station, Texas.

From Friday to Sunday, the championship saw the 16 best club teams in the nation competing to take home the title. Each team played three games with the top eight teams playing on Sunday to determine the final standings.

Facing the University of Florida in their first match of the weekend, MIT fought a tough battle and came out on top. Behind by

one goal after the first quarter, the Lady Engineers stayed in the game and scored four in the second to take the lead by half time.

But the Florida Gators were not easily put off either and came back to tie the game and send it into overtime. In the first overtime period, Florida scored the only goal, much to the Beavers’ dismay. MIT came back in the second overtime period with one last burst of energy and scored two goals, including a beautiful shot from Christi E. Winiarz ’07, finishing off the game.

Other scorers included E. Jeanie Ward-Waller G with 3 goals, Michele J. Sullivan ’08, Lindsey R. Sheehan ’07, and Kristen L. Cook G with one a piece.

Following their tough win over Florida, MIT took on Miami of Ohio University the following morning. In a disappointing match-up, Miami stole the show, scoring 11 goals to MIT’s four. Winiarz did her best with two goals and had help from Ward-Waller and Cook with one goal each. The team fought hard, but the Redhawks’ speed led to their defeat.

Later on Saturday night, the Engineers faced the University of Oregon in a successful match that ended 9-3 MIT. Ward-Waller led the way with four goals followed by Winiarz with three. Cook and Sullivan contributed one goal each to bring the Beavers to the fifth place game the following morning.

In their last game of the tournament, MIT confronted Rice University and was victorious. The Engineers stole the lead in the beginning with two quick goals in the first quarter. Rice attempted to regain their footing, but MIT’s vast array of scorers kept them off-balance. Ward-Waller again stepped up with two goals along with Moria C. Chambers ’06. Winiarz, Cook, Sullivan, and Elizabeth A. Whitehead ’07 each scored one goal a piece to lead the team to the 8-6 win.

Ward-Waller was named Most Valuable Player of the North Atlantic Division was also named to the Second All-Tournament Team.

Summer Weather Arrives in Cambridge



Clockwise from top left:

The staircase in Building E25 looms above the walkway.

Leaves cast shadows on the ground next to the shadow of The Wave shuttle to the Cambridgeside Galleria outside the Kendall Coop. The dancing shadows provide a small source of entertainment to the passengers waiting for departure in the heat.

Three pilings are reflected in the Charles River underneath the bridge between the Cambridgeside Galleria and the Boston Museum of Science.

Ivy covers the bridge post and reaches up to the light post on the bridge between the Cambridgeside Galleria and the Boston Museum of Science.

Bollards line the boardwalk outside the Cambridgeside Galleria.

A branch peeks under the side of the bridge between the Cambridgeside Galleria and the Boston Museum of Science.

Photography by Christina Kang

